Lectures
ON SOME
NERVOUS DISORDERS THAT RESULT FROM OVERWORK AND MENTAL ANXIETY.

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LECTURE II.

GENTLEMEN,—In my last lecture I referred to some of the more common sources of mental and nervous disorder. In the present lecture I propose to describe some of the consequences or symptoms which may result from overwork, anxiety, or mental shock and terror.

The effects of mental anxiety vary greatly in different cases, the difference depending partly upon the original mental and bodily constitution of the patient, partly upon education, position in society, and habits of life, and very much, too, upon the kind of treatment to which the anxious patient is subjected. But amidst all the variety of circumstances to which I have alluded there are certain general features which characterise nearly every case of overwork and mental worry. These general characters I now proceed to describe.

Amongst the effects of anxiety of mind, whatever may have been the exciting cause, there is not one which is more frequent or more important than that which manifests itself by sleeplessness or by disturbed and therefore unrefreshing sleep. It is very interesting to note the various accounts which different sufferers give of their sleeping hours. One of the most frequent complaints is that the sleep is disturbed by distressing and frightful dreams, which assume a great variety of forms in different cases. The sleeper often fancies that he is falling down a precipice or into deep water, or that he is pursued by some fierce animal in brute or human form, or that he is in some situation of difficulty, perplexity, and danger from which he cannot escape: these are amongst the mildest forms of unpleasant dreaming. In other cases the dreamer has visions of dead relations and friends, or he is haunted by spectres of every form which a disordered imagination can conceive. No physiologist can doubt that in dreams such as these we have the explanation of most stories of ghosts and apparitions. Samuel Taylor Coleridge, who, as we know, at one period of his life was a large consumer of opium, when asked if he believed in ghosts, replied, "No, I have seen too many of them myself." The distress of the dreamer is often manifested to those who are watching his slumber by a pained or terrified expression of countenance, sometimes by profuse perspiration, with violent action of the heart, and laborious or hurried and gasping breathing; sometimes, too, by suppressed moans, or by frequent talking, and not uncommonly by a loud cry of terror. In some cases the dreamer starts out of bed and walks about the room, and he may awake in doing this, or he may be aroused by his own cries; but in other instances, as in the case (No. 2) which I related in my last lecture, it is very difficult to bring him back to a state of complete consciousness. On awaking he often has a vivid recollection of all the circumstances of his dream, and he fears to go to sleep again lest in his sleep he should have a return of the dreadful thoughts and visions; but in other cases he is quite unconscious that he has been dreaming or talking or making a noise; he has only a vague sense of something terrible, and he finds his skin bathed in perspiration and his heart beating violently. This violent palpitation is sometimes a source of great alarm to the patient. I was once called up to one of our medical students, whom I found in a paroxysm of hysteria, with globus in his throat and a dread of instant death. He had led a very quiet life, but he was of a nervous temperament, and had been anxious about an approaching examination. It appeared that he had been dreaming, and when he awoke he found his heart beating violently; this alarmed him, and as he continued to direct attention to his heart, the palpitation increased in violence; this, again, added to his fears, and thus afforded a good illustration of the mutual influence upon each other of mind and body, of head and heart. I found that he had no symptom of structural disease of any kind, and after some time, but not without considerable difficulty, I succeeded in persuading him that he was only in a fright, and that his fears were groundless.

When a patient awakes after a night of disturbed sleep, such as I have described, he usually complains of exhaustion, and will often say that he is more tired in the morning than when he went to bed; a feeling which we can easily understand if we bear in mind that not only has he had no rest—a dreaming brain being an unresting brain,—but he has been exposed to the disturbing and exhausting influence of terror during the greater part of the night. This sense of languor and unrest is in most cases combined with loss of appetite, inability for exertion, depression of spirits, a sensation of pain or weight in the head, and sometimes with an oppressive feeling of drowsiness during the daytime, particularly after meals.

When this restless condition has continued for some time it is almost invariably associated with a peculiar, anxious expression of countenance, and, in particular, with a remarkable appearance of the eyes, which will often enable you at once to detect the general character of the case with which you have to deal, and so will suggest such further inquiries as may be necessary for its complete elucidation. The appearance of the eyes to which I refer is difficult to describe, but it may be immediately and easily recognised when once it has been pointed out and clearly perceived. The anxious eye loses that brilliancy and liveliness upon which so much of its natural beauty depends, and it assumes something of the dull and inanimate appearance of a snake's eye. The iris often appears to be in a more or less fixed and inactive condition, so that the size of the pupil varies but little and slowly under the influence of light or mental emotion. If you watch the bright eyes of an intelligent child under the influence of some pleasing emotion, you will see that there are frequent and rapid changes in the size of the pupil. The dull and anxious eyes of the overworked and harassed man or woman are in striking contrast with the brilliant eyes of the happy child. In cases of long standing the pupil is often very small; and, in some of the worst cases, I have seen the pupil contracted almost to the size of a pin's point. It is seldom that even in these extreme cases there is any intolerance of light; but there is often, in a greater or less degree, dimness or defect of sight, without any appearance of structural change in the eye. I believe, however, from what I have seen, that atrophy of the optic nerve and retina is one of the more serious consequences of long-continued overwork of brain. Quite recently I have seen a very intellectual girl, aged nineteen, who, as a result of excessive mental application in addition to other signs of nervous disorder, suffered from severe pain in the eyes, which prevented her from reading. An eminent oculist had examined her eyes, and pronounced them to be free from all appearance of structural change.

I have already intimated that the anxious expression of the patient's face will often give a clue to the general character of the case, and serve as a guide to the true source of the symptoms. I may add, too, that the information which we gain by observing the patient's physiognomy will sometimes induce us to persevere with our inquiry when the answers to our first questions are not such as we expected to receive. For instance, I have often been told by patients who have presented the anxious expression of face which I have described, that their sleep is not only not bad, but indeed they "sleep too well." Now in these cases it will often be found, on inquiry, that although they sleep so heavily that they can with difficulty be aroused in the morning, yet their sleep is constantly disturbed by frightful dreams; consequently they awake unrefreshed, and they are languid and drowsy during the day. The cure for this too heavy but unrefreshing sleep is a dose of chloral or some other soporific at bedtime, repeated for a few nights until the habit of dreaming is broken; the result will often be refreshing sleep at night, and, as a consequence of this, the cessation of the languor and drowsiness which had before continued during the day, after a night of harassing dreams.

I have sometimes been told, in answer to the question

whether a patient has been disturbed by dreams, that he does not get sleep enough to render dreaming possible. He declares that he lies awake all night. I believe, however, that a patient is very rarely so wakeful as this statement would imply; and that often when he supposes that he has not once closed his eyes he has really slept, but his slumbers have been so frequently broken and disturbed by dreams that he can scarcely distinguish between his sleeping and his waking hours. I scarcely need say that sleep of this imperfect character is almost as unrefreshing as complete wakefulness.

I have yet one remark to make with reference to the character of the dreams. When the exciting cause of the anxiety and restlessness has been some great grief or sudden shock of terror, it will often happen that this continually recurs to the dreamer. Thus the bereaved mother not only dreams of her dead child, but the image of her lost one often appears vividly before her in her dreams. The alarm of fire will be repeated every night for months; and the poor man whose case I related in my last lecture (Case 2) appears to have been terrified during a period of seven years by the nightly recurrence of the ghastly vision of the child whose violent death he had accidentally caused and witnessed. In many cases, however, it is impossible to trace any resemblance between the character of the dreams and the past events of the patient's life.

One of the consequences of mental anxiety, which is as often as any other associated with disturbed sleep, is a more or less complete loss of the appetite for food. In only a very small proportion of the many cases that I have seen have I been told by an overworked, anxious, dreaming patient that he could take his food as usual. In many instances the digestive powers are much impaired; there is pain or a sense of weight or fulness, with flatulence, after eating. In some cases severe stomach pain, with water-brash and occasional vomiting, are complained of; in others diarrhœa is a troublesome symptom. Now I am careful, and I warn you to be careful, not to confound with the cases to which I now refer, others of a quite different kind. I mean cases of dyspeptic and nervous derangement, principally caused by an excessive indulgence in alcoholic stimulants, and a deficiency of nutritious food. Again, there is another class of cases in which dyspeptic symptoms have been excited, or at any rate aggravated, by a too liberal administration of stimulants to some weak and nervous patient who has been exhausted by bodily fatigue, or mental worry, or by an attack of illness. A weak and nervous patient who takes wine, beer, or spirits freely, because, as he says, he has no appetite for food, should be warned that the first step towards the recovery of his appetite and his strength must be an entire suspension or a greatly reduced supply of alcoholic stimulants, and the substitution of milk or some other easily digestible liquid food, until the power to eat and digest solid food is regained.

Returning now to the more immediate effects of mental anxiety, it is not easy to determine whether the loss of appetite is a direct result of the nervous excitement, or whether the restlessness is a result of the diminished supply of nutriment to the brain; but it is probable that the two conditions have a mutual influence upon each other. Probably most persons have experienced in some degree the power of mental emotion to take away the appetite for food and to disturb the process of digestion. On the other hand, the influence of an empty stomach or of a sense of hunger in preventing sleep, and of a moderate fulness of that organ in promoting drowsiness, is well known. One fact which I have frequently observed tends to show that in the class of cases under consideration the loss of appetite is a direct result of a primary disorder of the nervous system: I allude to the beneficial influence of opium. A man who has been more or less restless for many months, and who during that time has had almost a loathing of food, after taking a grain of opium at bedtime for a few nights, sleeps soundly for several hours, and then wakes with an appetite for food; refreshing sleep returns each night, at first with, but soon without, the help of opium, and with this the appetite often becomes voracious, like that of a patient recovering from a fever or from some other exhausting illness. Now it is contrary to all clinical experience to suppose that opium would by any direct influence on the stomach increase the appetite or assist digestion. The tendency which opium has to disturb the stomach and to excite sickness or nausea is one of its disadvantages, which renders it on the whole a less useful soporific than chloral in this class of cases. This well-known disturbing influence of opium on the stomach, and the fact, which I have observed in numberless instances, that the appetite has not returned until the opium has procured sleep, tend to prove, as I have said, that the derangements of the nervous system, in the cases referred to, are first in the order of time and importance, while the loss of appetite and the impaired powers of digestion are consequences of the nervous disorder.

Now let me point out to you that in cases of delirium tremens the order of events is the opposite of that which I have just now described. The delirium and other evidences of nervous disorder are indirect results of alcoholic excess; they are directly due to malnutrition of the brain. I must remind you that the delirium which is caused by the presence of alcohol in the blood—the delirium of intoxication—is entirely different from what is called "delirium tremens." An attack of delirium tremens generally follows a more or less prolonged fit of drinking, during which very little food of any kind is taken, so that the brain and the tissues generally are for a time poisoned and starved simultaneously. Up to a certain point the frequent repetition of the alcoholic stimulus tends to steady the tremulous muscles and to calm the excited brain; but at length the supply of drink is cut off by want of cash and credit, or it may be that the abused and irritated stomach will tolerate no more; then, when the stupefying influence of the alcohol has passed away, the unhappy man awakes to a consciousness of his condition—his money gone, his work neglected, debt and perhaps disgrace incurred; and so, under the influence of a perturbed mind and a starved brain, he has a fit of delirium tremens. Now we have learnt by degrees that the main object of treatment in these cases of delirium *e potu* is not to attempt to force on sleep by large doses of opium or chloral, but to feed the delirious patient. In spite of all treatment by drugs, the wakefulness and the delirium will continue until a certain amount of nutriment has been assimilated by the starved and exhausted brain. Opium and chloral, and even alcohol, cautiously given, are valuable aids; but the substitution of narcotics for food has often been attended with a rapidly fatal result, as I have shown at length in my lecture on Delirium Tremens (published in THE LANCET, April 21st and 28th, 1866). You see, then, that, while in cases of delirium *e potu* sleep follows and is favoured by taking food, in the cases primarily nervous the soporific effect of opium or chloral procures sleep, and then restores the appetite and assists digestion.

Now, to continue the history of our nervous cases, it is obvious that the combined influence of loss of sound refreshing sleep and loss of appetite, with imperfect digestion, must tend to impair the nutrition and lessen the strength. Loss of flesh and strength to a greater or less extent are observed in almost every case when the symptoms have been of long duration. One man who had suffered much from restlessness and frightful dreams, in consequence of business anxieties, assured me that, during a period of two years, his weight had been reduced from 15 st. to 11 st.; and this statement appeared quite consistent with the loose fit of his skin and his clothes. Another man, who had suffered in a similar way in consequence of misfortunes, had lost, as he informed me, from 2 st. to 3 st. weight in two years. This was one of the cases before referred to, in which, after a long period of nearly total inability to eat or to digest food, a voracious appetite became almost a matter of complaint after refreshing sleep had been obtained by the temporary use of opium. Another patient, a woman, who had suffered from anxiety, restlessness, and loss of appetite for several months, had diminished in measure round the waist from 24 in. to 19 in. After taking a grain of opium at bedtime for a few nights she slept well, and began to eat so voraciously that, as she told me, she felt ashamed to eat so much, and her husband was quite anxious about her great and, as it seemed to him, unnatural appetite. The result was that within a month she had gained 3 in. in measure round the waist. These measurements were her own; but the rapid improvement in her appearance was quite confirmatory of her statement. It is obvious that so considerable a defect of nutrition as I have here indicated must react injuriously upon the mental disturbance in which it originated. For there can be no doubt that the depressing and disturbing influence of mental motion will be, *cæteris*

paribus, in direct proportion to the degree of bodily exhaustion, and more particularly to the malnutrition of the brain. A sure way to excite delirium or other serious form of nervous disorder would be to take an over-anxious nervous man and to bleed or purge or starve him, and thus reduce rapidly his bodily powers. It is painful to think how often and how fatally this mode of practice was adopted when it was supposed that furious delirium was the result of inflammation of the brain or its membranes, and that the proper treatment consisted in the fearless adoption of so-called antiphlogistic measures. And antiphlogistic they certainly were in the literal sense of tending often to *extinguish the flame of life*.

The derangement of digestion, to which I have referred as one amongst the most common results of mental anxiety, not unfrequently gives rise to symptoms referable to the urinary organs—symptoms which often excite an unfounded dread of serious organic disease. Frequent micturition and pain in the back are the symptoms usually complained of, and these are often supposed by an anxious patient to depend on disease of the kidneys or bladder, more especially when the urine is turbid and deposits a copious sediment. On examination it is often found that the urine is excessively acid and deposits lithates on cooling. The acid urine irritates the kidneys and bladder, and thus occasions the pain and the frequent micturition. In other cases the urine is neutral or alkaline, with a copious phosphatic sediment. These states of urine are, of course, not peculiar to nervous and anxious patients; but, since any pain or any unusual appearance of the urine is a source of alarm to these timid subjects, you ought to be prepared to give a correct explanation of the symptoms and to apply the appropriate remedies.

In some instances the pain in the back is very severe, and being much increased by motion, its seat is probably in the lumbar muscles; but I have met with several cases of this kind which have been mistaken for inflammation of the kidneys and treated as such. One of my hospital patients, a carpenter, had severe pain in his back, which he thought was caused by inflammation of the kidney, for he had a similar pain some months before, which was called inflammation of the kidney, and for which he was treated by cupping and other active measures. On that occasion he was ill for several weeks. He had a very anxious countenance, he had been for some time out of work, and he was restless at night. I gave him an opiate pill for a few nights, which made him sleep well, and he quickly lost his pain. He told me that the first attack of pain, like the last, had come on when he was anxious on account of being out of work; I therefore concluded, as he did, that both attacks were of the same kind. He agreed with me, too, in opinion that the opiate plan had been far more successful than the antiphlogistic treatment adopted on the first occasion. Many pains in the loins are quite unconnected with nephritis, and, on the other hand, the kidneys may be seriously diseased without a complaint of backache. A chemical and microscopical examination of the urine is essential for accuracy of diagnosis in all cases of suspected kidney disease. I have seen several cases in which saccharine urine and other symptoms of diabetes have apparently resulted from excessive brain-work and mental worry. This would seem to be analogous to the result of Bernard's well-known experiment on rabbits, in which the secretion of saccharine urine was directly caused by mechanical irritation of the medulla oblongata.

There is, probably, no form of functional disturbance which is a more frequent source of anxiety and alarm to a nervous patient than the palpitation of the heart which is so often associated with mental anxiety and restlessness. I have already referred to palpitation in connexion with the frightful dreams by which the patient is harassed at night. A similar disturbance of the heart's action is scarcely less distressing in the daytime. The cause of this is probably in part purely physical, and partly mental. The nutrition of the heart suffers in common with that of the rest of the body in consequence of broken sleep and the associated disorder of the digestive organs. The tendency to palpitation thence resulting is similar to that which exists in cases of anæmia and chlorosis. The powerful influence of mental emotion upon the heart's action is so well known that it is unnecessary to insist upon it. It will commonly be found that the disturbance of the heart's action bears a relation, first, to the weakness and consequent irritability of the organ itself, and, secondly, to the degree in which the patient's attention is anxiously directed towards the heart. The two main objects of treatment, therefore, are to strengthen the muscular tissue of the heart by sleep, food, and tonics; and to divert the patient's attention from his heart by the assurance that there is nothing in the state of that organ about which he need be anxious. The effect of a favourable opinion and a hopeful prognosis is often very beneficial by calming the patient's fears and restoring his confidence; while, on the other hand, an erroneous diagnosis or an unguarded expression with reference to heart disease may be a source of great additional suffering to the patient, and may greatly retard or entirely prevent his recovery. A poor woman whose natural irritability and nervousness had been increased by great domestic troubles, and who, in consequence, suffered much from palpitation, was told by her medical attendant that she had a diseased heart, and an issue was established over the supposed seat of disease. She had endured this addition to her sufferings for several weeks when she came to the hospital. The impulse of the heart was sharp but feeble, and the sounds were quite normal; there was evidence of a weak and irritable heart, and of nothing more; but it was long before she lost the dread of sudden death, which had taken complete possession of her mind, and which had doubtless been confirmed by the erroneous diagnosis and the injudicious treatment to which I have referred.

It is but seldom that an irregular and excited action of the heart is unassociated with some degree of difficult breathing, and when this is attended with cough an anxious patient will often be tormented by a dread of consumption.

I make frequent allusion to the fears of this class of patients because they constitute so very important a feature of their history, and because it should be one of the chief objects of the physician to convince the anxious patient that his fears are groundless, and that the disease which he so much dreads has no existence except in his own terrified imagination. If, after a careful examination of the chest, we can assure him that his lungs and heart are sound, we shall remove a weight of anxiety from his mind which will greatly contribute to the recovery of equanimity and bodily strength.

Hunterian Lectures
ON
SYPHILIS,
AND ON
SOME LOCAL DISEASES AFFECTING PRINCIPALLY THE ORGANS OF GENERATION.

Delivered at the Royal College of Surgeons of England,

BY HENRY LEE, F.R.C.S.,
PROFESSOR OF SURGERY AND PATHOLOGY TO THE COLLEGE.

INOCULATION OF SYPHILITIC BLOOD—(CONTINUED.)

M. ROLLET has collected together and tabulated twenty-seven cases in which syphilitic inoculation was performed on patients who had not previously had the disease. Of these the inoculated matter was derived from primary chancres in eight cases, and the average period of incubation before the appearance of any distinctive syphilitic symptoms was about twenty-four days. In ten of the cases the secretion inoculated was derived from mucous tubercles, and the average period of incubation was nearly the same. From this it appears probable that the disease, whether derived from a primary or secondary source, runs the same course in uncomplicated cases. Now in all the instances hitherto given the first appearances have been those belonging to the adhesive form of inflammation. This I regard as the typical mode of the origin of the disease, where there is no accidental cause of irritation, and where the system is infected for the first time.

Jenner long ago warned the profession against supposing that every inoculation produced from a vaccine vesicle con-

veyed the vaccine disease. That which did he has carefully described. It is essentially the product of the adhesive form of inflammation. The lymph produced which is fit for reinoculation contains no pus, and, indeed, to the common eye, and even with a microscope of low power, appears to contain no globules. Dr. Beale has, indeed, shown that with a microscope of high power germinal matter may be detected in the vaccine lymph, and in the processes of scabbing and healing no doubt real pus-globules are often formed. But this in no way militates against the fact that the essential character of the action which produces the lymph that in its turn will reproduce the same disease is of the adhesive and not of the suppurative nature. How imperfectly these two actions, so clearly defined by Hunter, have been considered by many continental writers, is demonstrated, in reference to our present subject, by the indiscriminate use they make of the words "vesicle" and "pustule." In many of their writings the "vaccine pustule" is as often mentioned as the "vaccine vesicle." The two kinds of action produced by syphilitic inoculation have, in the same way, been confounded and spoken of as if they were the same and might produce the same results. The works of many continental and of some English authors are full of the descriptions of the origin and course of the so-called syphilitic pustule, of the number of times it may be reproduced, of its value as a means of diagnosis, and the effects of its repeated reproduction on a patient's constitution. Now this form of inoculation is quite distinct from that which we have hitherto considered as having to do with the production of real syphilis. These specific pustules, as they are called, no more resemble real syphilitic inoculations than the abnormal pustules which sometimes follow attempts at revaccination resemble in their pathological effects the morbid process which protects a patient's constitution against the recurrence of the same disease or against the infection of small-pox.

The cases hitherto given all occurred in virgin constitutions, or in those who had not previously had syphilis; and in them we have the opportunity of recording the disease as developed in healthy patients, and in an uncomplicated condition. The actions both in the primary and secondary manifestations originally commence, if they do not terminate, without suppuration, ulceration, or mortification. The disease commences by an effusion of lymph, which becomes organised, and may remain so. The corresponding inguinal glands are affected with the same kind of action. They enlarge, but never suppurate, as I believe, from this disease alone. The subsequent eruption of the skin, again, is of the same nature. First, congestion of capillaries, with some slight formation of new matter; and then different forms of pimples, smaller or larger, distinct or confluent. These all desquamate, and are often covered by scales as thin as silver paper. In their separate and isolated form they have received the name of lichen; when larger, of tubercles; when confluent within a defined space, although distinct at first (as they may be generally observed), the eruption assumes the forms of psoriasis and lepra.

Upon a recurrence of the disease at a later period, or even at its first appearance, in an unhealthy person, the secondary manifestations, instead of being of the adhesive character, may directly present the distinctive characters of suppuration, ulceration, or mortification. These facts did not escape the acute observation of Carmichael; and he accordingly describes (1) the papular venereal disease, (2) the pustular venereal disease, and (3) the phagedænic venereal disease. It is true that he attributes these to different kinds of poison; but that they are essentially the same, and depend upon one and the same disease, appears evident from all these varieties sometimes appearing, as may practically be observed, upon the same person, and from the same infection, at different periods. In particular states of the constitution of the patient there can be no doubt that a primary affection, which would present any of these varieties, would be very likely indeed to be followed by secondary manifestations of the same character.

Thus, in Group vii., Nos. 220, 221, and 222, in our collection, are represented an eruption of papules and of tubercles, the latter passing into suppuration and ulceration.

No. 226 is a coloured lithograph of the forearm, showing a pustular syphilitic eruption. The distribution of the pustules has a corymbous character, and the eruption presents the progressive stages of papule with pustular summit, fully developed pustule, and encrustation with a deep brown scab. In their mature form, and especially in their incrusted stage, the pustules are surrounded with a slightly inflammatory areola. The patient was a young man, aged eighteen, of strumous diathesis, subject to enlarged lymphatic glands, and exposed to vicissitudes of temperature. And the order of succession of the disease was as follows:—In October, a chancre; eight weeks after, a pustular eruption, with periosteal swellings; a month later, sore-throat, with tonsillitis; six weeks after this, a second eruption of pustules; and three weeks afterwards a third and partial pustular eruption.

No. 227 is a plaster cast of the forearm of the same patient.

No. 228 is a model of the forearm, exhibiting a pustular form of syphilis in a retrogressive stage. The surface is sprinkled over with papulæ in various stages of decline, and with a group of thick brownish-yellow scabs; the largest of the scabs measures nearly half an inch in diameter, and a denuded tubercle one-third of an inch.

Both the primary and secondary manifestations of disease may thus be most materially modified, either by constitutional or local causes, or by the tissue in which they appear. The principal constitutional cause which modifies the first appearance of a real syphilitic inoculation is the existence of what I have, for want of a better term, called the syphilitic fever. This fever is recurrent in its nature, and its consequences will often appear after the lapse of months or years, but its effects are manifested in the most marked manner on its first occurrence. Under the influence of this fever, I need not remind my present audience that eruptions in great variety will appear on the skin, without any local irritation being applied; but if, in addition, there be local irritation, a circumscribed spot of inflammation may be determined which the local irritation alone would not have produced. Thus the inoculation of common pus, which, under ordinary circumstances, would have produced no effect, may give rise to a pimple, a tubercle, or a pustule. If the pus so inoculated should contain any irritating matter, then we have the joint effect of the constitutional disease determined to the part, and the local irritation produced as the immediate effects of the inoculation. The way in which the existence of the syphilitic fever in its various degrees modifies a real syphilitic inoculation is a point which, I believe, has not hitherto been sufficiently considered.

The following cases afford some illustration:—

CASE 31.—A medical student had a typical chancre, which, in all probability, had something like the usual period of incubation. He inoculated himself from what secretion he could get from its surface, before it had become indurated: the inoculation succeeded—a pimple formed, in the apex of which a small quantity of white lymph appeared, which soon became softened down. Both inoculations subsequently became well developed button-shaped chancres. In this instance, as in the second inoculation in Case 18, the inoculation was performed while the syphilitic fever was in process of being developed. It had the effect of doing away with the usual period of incubation, but not of preventing the typical induration, which it certainly would have done had the inoculation been performed at a later period, as has been recently so abundantly proved by the so-called process of syphilisation.

CASE 32.—A woman who had for some years been about town, but who had no present symptoms of constitutional syphilis, was inoculated with the secretion from an infecting sore; a pimple followed the inoculation; at the expiration of a month the pimple was still there, and was surrounded by a faint copper-coloured eruption. The spots occupied the diameter of about six inches, and faded ultimately of their own accord; no other local or constitutional effect appeared as the result of the inoculation. Here the syphilitic fever, as I read the case, was so far exhausted as to have no power of itself of producing fresh manifestations, but had left an impression upon the system which protected it from any fresh constitutional disturbance, and, at the same time, very materially modified the local symptoms. During the existence of the syphilitic fever—that is to say, as long as the patient is liable to fresh manifestations of disease from his first infection—the inoculation of the secretion from a primary or secondary unirritated syphilitic sore generally produces no result, or a slight

superficial irritation which soon subsides, or some abortive form of adhesive inflammation. Inoculations of this sort are analogous to those performed with the vaccine matter on patients who are still under the influence of a previous vaccination. I have over and over again inoculated syphilitic patients with the secretion from an uncomplicated, unirritated, indurated chancre, and always with a negative result. If, however, from any constitutional or other cause, there be much irritation about the parts from which the secretion so inoculated is taken, then a result is produced. But it is very different from those which we have previously considered. If, for instance, an indurated sore be irritated by the application of some savine ointment, as in my original experiments upon this subject, then the inoculation succeeds; or if the sore has been irritated by the application of any other diseased secretions, or if it be much inflamed from any constitutional or local cause, then again a result is produced; but that result differs in its essential characters from the typical syphilitic inoculation. There is no period of incubation. There is no well-defined induration produced. There is no enlargement of the corresponding inguinal glands, and no fresh constitutional symptoms. The inoculated spot shows at once the characters of the suppurative inflammation, and not those of the adhesive; any fresh matter that is effused rapidly softens and no longer remains a part of the living body. Unless some phagedænic action takes place there is little or no loss of the natural structure of the part, and when the inoculation heals the cuticle is on a level and sometimes above that of the surrounding parts. In this respect there is an essential difference, in my opinion, between this form of inoculation and that from the local suppurating sore, which I shall have hereafter to describe. In the same way secondary syphilitic affections, unless there be some constitutional or accidental cause of irritation, heal without loss of substance, and the cicatrices of the skin leave no permanent depression.

CASE 33.—Some matter taken from a patient who had a dense circumscribed induration on the inner prepuce, causing phimosis, accompanied by great discharge, and whose body was covered by a secondary eruption, was inoculated from a sore on the abdomen of another patient. A series of seven inoculations were produced. These all commenced as pustules, and produced irregular superficial ulcerations, covered with thick crusts. The edges of the ulcerations were scarcely defined. When they healed the cuticle covering them was on a level with that of the surrounding skin, and the marks of the inoculations were soon entirely effaced, as those of a secondary syphilitic eruption would have been when cured.

The syphilitic diathesis, like the effects of vaccination, may wear itself out more or less completely, and then a fresh inoculation may take place, which may produce fresh constitutional results.

CASE 34.—A married gentleman unfortunately exposed himself to contagion. This was followed by well-marked primary syphilis, for which he was thoroughly treated under my own care. About the time when secondary symptoms might have been expected his general health failed. He lost flesh; was pale and depressed; a slight eruption appeared on the skin of one arm, which, under treatment, very soon subsided. He had no other specific symptom for seventeen years, when he again exposed himself. A small circular abrasion now appeared on the glans penis, which ultimately became developed into a small tubercle, desquamating on its surface, and continuing for many weeks. The glands in the corresponding groin became enlarged and painful. These symptoms were succeeded now for the first time with well-marked circular copper-coloured patches on various parts of the body.

Other cases of this second inoculation of constitutional syphilis I have elsewhere mentioned, and will not here repeat. I shall have to consider this subject again under the head of Syphilitic Enlargement of Glands.

One form of reinoculation, which I have not seen described or referred to by authors, produces a red raised pimple on the mucous membrane, depressed in its centre, and persisting for many weeks. The appearance presented is not unlike a single projection of the surface of a raspberry.

Another most important modification of the results of the application of syphilitic matter depends upon the structure to which it is applied. Hunter showed, as I have said, that the mucous membrane was capable of the adhesive form of inflammation. Lymph may be secreted on its surface as the result of great or prolonged irritation, or effused into its structure, and into that of the submucous tissue. As a rule, however, irritation of a mucous membrane produces suppuration, and the pus-cells are thrown off from the surface, together with any irritating matter that may be mixed with it. The mucous membrane does not then become permanently thickened, nor does it ulcerate. The newly formed bioplasts carry their life up with them and cease to be a part of the living being which produced them.

"It is an invariable effect," according to the Hunterian doctrine, "that when any part of an animal is irritated to a certain degree, it inflames and forms matter, the intention of which is to remove the irritating cause. This process is easily effected when it is on a surface whose nature it is to secrete, but when on a surface whose nature is not to secrete, it then becomes more difficult, and another process must be set up. This is not only the case in common irritations, but also in specific irritations from morbid poisons, as the venereal disease and small pox. The variolous matter, as well as the venereal, produces ulcers on the skin, but when it affects secreting surfaces, a diseased secretion is the consequence, and this is different in different parts: on the tongue, inside of the mouth, uvula, and tonsils, the coagulable lymph is thrown out in the form of sloughs, somewhat similar to the putrid sore-throat; but in the fauces, and all down the œsophagus, a thickish fluid, in appearance like matter, is secreted. When irritation is applied to a surface whose cuticle is thin, and where there is a secretion naturally, as the glans penis, then it sometimes only irritates so as to produce a diseased secretion." (See Case 8.)

There are three ways, Hunter says, in which a chancre may be produced: first, by the poison being inserted into a wound; secondly, by being applied to a non-secreting surface; and, thirdly, by being applied to a common sore. But infection of a patient's system, Hunter held, might be and often was produced by a gonorrhœa independent of a chancre. He says the matter of a gonorrhœa will produce either a gonorrhœa, a chancre, or the lues venerea; and the matter of a chancre will produce either a gonorrhœa, a chancre, or the lues venerea. Now there can be no doubt that Hunter in his descriptions has confounded together several different affections of the urethra, and has classed them together under the common name of gonorrhœa. Yet he owns the difficulty of distinguishing these, and says—"We see many gonorrhœas that begin without any appearance of inflammation, and I have been very much at a loss to determine whether they were venereal or not, for there is a certain class of symptoms common to almost all diseases of the urethra from which it is difficult to distinguish the few that arise solely from the specific affection." That the very large majority of cases of urethral discharge do not depend either upon syphilis or gonorrhœa may be concluded from the simple consideration of the great variety of causes which will produce such affections. These will be more fully considered hereafter. But if it be conceded that some forms of urethral discharge are really syphilitic, it is no easy matter always to distinguish them from those that are not. Inoculation has been supposed to furnish the means of diagnosis.

THREE CASES OF DILATATION OF LYMPHATIC RADICLES.

BY C. HANDFIELD JONES, M.B. CANTAB., F.R.S.,
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CASE 1.—W. S——, aged nineteen, fetler, admitted on January 11th, 1875. Family history good; father, mother, brothers, and sisters alive and well. No history of previous illnesses. About six weeks ago he had slight catarrh and cough, and noticed a small swelling of his neck. This was soon followed by swelling of the left side of the face and of the upper part of the head and forehead. It then appeared in his hands, and afterwards in his feet and legs. He had at the same time pains in the loins, which were not much

felt unless he moved about. His urine at the same time was brown and thick and very scanty, and was passed very seldom. His appetite has never failed; his bowels have been pretty regular. He does not think he has lost flesh. Is anæmic-looking, but skin of trunk and abdomen is markedly brown, except a small patch near left iliac crest, which is white, the demarcation being abrupt between the pale and brown parts. Heart sounds are healthy. No anasarca, but the abdomen is markedly dull for some extent in both flanks, in the left especially; the dulness in left is diminished when he turns on right side. Urine: sp. gr. 1030, deposits red lithates, is highly albuminous. Has simple diet—milk, beef-tea; ordered chop; and, in place of fifteen minims of ipecacuanha wine, and one ounce of citrate of potash mixture, four times a day, which he has had for two days, he is now to have solution of perchloride of iron, fifteen minims, and acetate of ammonia mixture, one ounce, three times a day, taking one drachm of compound jalap powder every morning.

Jan. 18th.—Legs more anasarcous, feet pit markedly; both fundi very pale, discs not well defined; sight is good; he can read a paper.

Feb. 1st.—Urine pale, contains much albumen; deposits a light sediment, containing nothing definite.

18th.—Urine very scanty, loaded with albumen, sp. gr. 1040; pain in loins.

19th.—Left thigh and leg much swollen; the thigh measured 24 in., the right only 20 in. Pulse weak and small; vomiting; urine very scanty and turbid, turns almost solid when boiled, is thick with lithates when cool; deposits numerous slender homogeneous and granular casts, a few also containing some corpuscles.

20th.—Left leg still more swollen, depending part very hard; girth of thigh 25½ in., left calf 16 in., right calf 12½ in. Right leg does not appear to be at all swollen. Pain is felt in left groin, not down the leg. Intellect quite clear. Urine not more than three ounces in twenty-four hours. Temperature 98·7° F.; pulse 96, weak. Has a warm pack every night.

22nd.—Marked dulness and absence of breathing in lower half, or rather more, of right back; a good deal of blood spit up. Scrotum very much swollen on both sides; right leg not swelled at all. Does not sweat at all in the pack; feels chilly. Urine: twenty-five ounces in twenty-four hours, sp. gr. 1040, thick with lithates. Taking, since the 19th, acetate of potash, half a drachm, in an ounce of water, three times a day and the mixture; hot-air bath.

25th.—Total urine 39 oz., of full colour, clear. A good deal more blood has been spit up. To-day the sputa are dark and muco-watery. Left thigh measures 25½ in.; scrotum still very distended.

27th.—Sweated last night very freely in the hot-air bath; the swollen leg sweated as much as the other.

March 1st.—Expectoration still very blood-tinged. Temperature 98°; urine, sp. gr. 1024, very albuminous. Gallic acid ten grains, glycerine twenty minims, water one ounce, three times a day.

3rd.—Much blood still in expectoration; thigh measures 24½ in.; scrotum more lax. Temperature before hot-air bath 100°, after bath lasting half an hour 100·4°. Skin of left thigh presents a great number of plexiformly arranged streaks running upwards.

11th.—The streaks are now evidently channels containing fluid; they have increased in size, and occupy a considerable extent both of upper and outer part of left thigh and buttock, and also the lower and inner part of the limb for a good way above the knee; they do not extend above the line of Poupart's ligament. They contain a clear alkaline fluid, devoid of corpuscles, slightly albuminous, sp. gr. 1009. A very large amount of this fluid ran from a single needle puncture; two clean sheets were saturated, and 1½ oz. was collected; the flow continued for some days. The expectoration on the 12th was nearly free from blood, and was less. The thigh measured 24 in., the calf 17 in.

On the 15th the total amount of urine was 47 oz. The lower right back only was dull, and a little crepitation was heard, and no other breath sound; the sputa were mucous and rusty. The dose of gallic acid was increased to twenty grains four times a day.

25th.—Left thigh measured 25 in., left calf 17½ in. The lymphatic channels at the upper and outer part of the thigh were so much enlarged that they often seemed to be on the verge of coalescing; some of them contained a red fluid. Smaller lymphatic channels were visible at the lower and fore part of left leg.

April 1st.—Thigh measures 26½ in., the calf 18 in.; left side of abdomen much swelled. The lymphatic channels are very prominent, and distended on upper and outer left thigh, and some have appeared in the same part of right; many of these contain a red-tinted fluid. The channels evidently indent or groove the corium, as is well seen when they are emptied by pressure.

19th.—Right leg has become swollen the last few days, and the scrotum increased; distended veins are seen on the scrotum, but none on the leg. Distended lymph channels are apparent now on upper and outer part of right thigh. Twenty grains of chlorate of potash, half a drachm of glycerine, and one ounce of water, three times a day.

23rd.—Fundus of both eyes pale. The urine, which on the 12th had been 20 oz., rose to 44 oz., on the 26th to 64 oz., on the 29th to 84 oz.

On May 3rd the urine still contained much albumen. There was much fluid in the abdomen.

24th.—Leg is diminishing in size; is bandaged. His general condition is good.

31st.—Urine very slightly albuminous, sp. gr. 1025; leg much smaller.

June 7th.—The leg is now nearly normal, save for the remains of the lymph channels, which are evident as depressions or grooves in the integument. Abdomen collapsed; resonant on right side, dull on left. Is able to walk about.

10th.—Came to hospital looking well, but requesting to have his chlorate of potash mixture, without which he did not feel so well.

CASE 2.—Mr. ——, aged about forty-five, for many years a perfect hypochondriac. Always thin, but lately has emaciated greatly; has got cough and expectoration, and his lungs present unmistakable indications of softening tubercle; soft femoral vein swollen, firm, and tender; both feet and legs œdematous, with erysipelatous redness on left leg. On both feet, on the dorsal aspect, there are several enlarged lymphatic channels, extending from near the toes to about the ankles. These are quite like those described in Case 1. He died a few days after this note was made.

CASE 3.—R. P——, aged nineteen, builder's labourer, admitted May 19th, 1875. Light hair and complexion, of slight make, hands of a dull red; a pale pressure spot is slowly effaced; he had scarlatina when a child; was not exposed to wet before his illness, but worked in a draughty place. Has felt ill three weeks; his face swelled seven days ago, and his legs and scrotum; the latter has subsided, the face continues puffed. Had sore-throat a month ago; it is not sore now. Skin moist; he perspired in a pack he had last night. Pupils very large. Vomits at times. Tongue furred, red at edges. Pulse 64; temperature 97·4°. Has pain on the right side, below liver, extending across to left. Abdomen full, dull in depending parts. Appetite good; is thirsty. Heart's sounds feeble; no bruit. Left lower back dull, and breathing very defective there; but resonance and breathing are present in the upper half of back. Lower third of right back is dull, and breathing weak; but no râles are heard. Urine: sp. gr. 1030, acid, highly albuminous. There is a congenital hydrocele on the right side; it became more marked four years ago, but he has always had some slight swelling in that region, which disappeared when he lay down. Retinal veins full and dark; the ocular fundi otherwise appearing normal. Simple diet: milk and beef-tea. To take ten grains of alum, twenty grains of sulphate of magnesia, ten minims of ipecacuanha wine, and one ounce of camphor mixture, three times a day; one drachm of compound jalap powder every morning.

May 22nd.—Urine in good quantity, dark with abundant sediment, loaded with albumen; sp. gr. 1032; deposits casts mostly narrow and granular, or homogeneous, slender, very few are corpuscular. Pulse feeble; feels very weak. Made sick by compound jalap powder. Omit pack and powder. Urine three ounces.

31st.—Urine yesterday had to be drawn off; this morning he passed it himself. Yesterday's urine is loaded with albumen, and deposits a notable sediment consisting of homogeneous casts, some narrow, others moderately wide, with abundance of medium-sized glomeruli; some casts

consist of granular pigment; no blood-globules seen; ascites considerable. Temperature 97·4°; pulse 84.

On June 1st the urine was very dark, contained a large amount of blood; the corpuscles were numerous and distinct. On the 7th there was still much blood in the urine, the dropsy had increased considerably, the scrotum and prepuce were very much distended. On thighs and lower abdomen there were numerous distended lymphatic channels containing a more or less red fluid. These on the 10th were noted to run down to the line of Poupart's ligament from the integument of about the lower half of the abdomen. On the 16th they were very numerous on the thighs; those on the abdomen were larger, and contained much bloody fluid, which, examined under the microscope on one occasion, exhibited multitudes of red globules. Soon after erysipelas attacked the lower abdomen, the lymphatic channels discharged a very large quantity of serous fluid, he became very prostrate, the temperature rose to 104°, and he died on the 20th. No remedies appeared to be of any avail.

Post-mortem examination.—Lower extremities anasarcous; dilated superficial lymphatics on inner and outer side of both thighs; erysipelatous necrosis of skin of lower part of abdomen.—THORAX: Lungs non-adherent, slightly œdematous; bronchial tubes full of frothy secretion; a patch of apoplexy at base of right lung, great congestion at base of left. Heart healthy, except one or two minute patches of atheroma about aorta.—Abdomen: A large quantity of purulent-looking fluid in peritoneal cavity; under the microscope the fluid presented rather a small number of corpuscles, and those which were visible were smaller than pus-cells and less granular; some traces of peritonitis. Lymphatics well marked in mesentery in lumbar region; mesenteric glands enlarged. Neither receptaculum chyli nor thoracic duct enlarged. Left external iliac and common iliac veins, and the right iliacs at their junction and at the entrance into the inferior cava, were plugged with old organised clot; clot of more recent formation existed in the lower part of left posterior tibial veins. Liver, spleen, pancreas normal. Kidneys extremely hyperæmic, with smooth surfaces, cortical part enlarged, pyramids dark, some whity mottling in cortex; conjoint weight eighteen ounces; suprarenal capsules congested in their medullary portion. Ileum presented solitary glands very much enlarged; the mucous membrane was hyperæmic. The lymphatic glands in the groins and about Poupart's ligament were slightly, if at all, enlarged.

Remarks.—The special symptom which characterises these cases must be, I think, rare. I have not to my recollection met with it before. But little notice is found of it in authors. Hasse, indeed, says, when writing on septic inflammation of the lymphatics, that "during life we observe that the lymphatic glands become turgid, while the course of the lymphatic vessels is indicated by a network of flat red stripes." The last three words convey a better notion of the appearance seen in my patients than the descriptions given by some writers of cases of cystiform or general dilatation. Wilks and Moxon do not seem to have met with the alteration in question; they only mention the occurrence of great varicose distension of the lymphatics of the thigh producing cyst-like knots, in consequence of some more or less obvious cause of obstruction. Pelters (Schmidt's *Jahrb.*, vol. cxv., p. 183) records a case of remarkable dilatation of the lymphatic glands of the right groin, small and large intestine. The glands were converted into cyst-like cavities, tensely filled with a yellow fluid, and the afferent and efferent vessels were also much dilated. The cause of the dilatation was considered to be obstruction to the circulation from valvular disease of the heart, especially mitral stenosis, and cirrhosis of the liver producing considerable ascites. A case is reported from the clinique of Prof. Kussmaul (see *Medical Times and Gazette*, vol. ii. 1861, p. 119), where the lymphatics of the abdominal parietes were much enlarged. The patient was an old woman, who had been tapped several times for ascites depending on cirrhosis of the liver. "From the middle region of the abdomen a multitude of cord-like vessels of the thickness of quills, which looked like rows of pearls, and were much twisted and prominent, proceeded downwards towards both inguinal regions. In this course they gradually flowed into one another, and ended in a few large vessels of the thickness of the little finger, which disappeared in the inguinal region. These vessels commenced in the middle and upper part of the abdomen, in spots of different size, which were transparent, and not prominent; they were probably vessels flattened by great tension, and might easily have been confounded with the cicatrices to be found on the abdominal parietes after numerous pregnancies. These also existed in this case. The right diagnosis of these spots, which were not connected with each other, was in this case only made after the small (short?) but very wide canals had been discovered, which were filled with lymph almost to bursting. On puncturing these vessels a yellow, opalising, neutral fluid escaped, which contained a trifling quantity of albumen, and on one occasion showed an acid reaction." The legs were only slightly œdematous, and the lymphatic vessels of the lower extremities were not dilated. Kussmaul attributes the distension of the lymphatic vessels to the reflux of the lymph being prevented by the colossal accumulation of serum in the abdominal cavity; but he recognises the anomaly of the lymph vessels of the lower limbs not being dilated. The opinion of anatomists seems to be now pretty well decided that lymphatics originate in intercellular spaces, comprising under this term the spaces existing between the fasciculi of connective tissue, or between the elements of the tissues, and even the serous cavities. The lymphatic vessels are believed to open into the latter by orifices termed stomata.

Now the vessels which were so enlarged and apparent in my patients were certainly not the ordinary superficial lymphatics figured by Mascagni, for these run in the subcutaneous connective tissue beneath the corium of the skin, while those I noticed were quite superficial, and, though they grooved the corium notably, were either quite on its surface immediately beneath the epidermis, or in its more superficial layer. They appeared, in fact, to be rather dilated lymphatic radicles than actual vessels. But that they truly belonged to the lymphatic system cannot, I think, be doubted. For (1) the fluid in them was in pretty rapid motion, as shown by the quantity collected from a single puncture; (2) this fluid had quite the character of lymph; (3) the vasoid cavities, while observing a sort of plexiform arrangement, took a general direction upwards, and disappeared at the region where the superficial lymphatics pass down to join the deep—behaving, in fact, both on the surface of the abdomen and the thigh, like recognised lymphatic vessels do; (4) the venous obstruction which was present in all the cases affords a special reason for considering the fluid to be lymph, inasmuch as, the return of blood by the veins being barred, there was no other channel left for the fluid effused from the capillaries to take but the lymphatics.

But, admitting that the fluid was lymph, that the vasoid spaces containing it communicated with the lymphatics, and that venous obstruction had a very material influence in causing the formation and enlargement of these channels, I cannot but think that some other less evident cause must have been in operation. For obstruction of veins by thrombosis, or phlebitis, or pressure of tumours, is no uncommon event, and gives rise to considerable œdema, as in phlegmasia dolens, yet without any apparent distension of lymphatic channels. Perhaps, indeed, this does actually occur in all cases, or in most; but, inasmuch as the vessels affected are subcutaneous, and not supracutaneous or subepidermal, as in my cases, the alteration is not noticed. The peculiarity of my instances would then consist simply in the situation of the vessels or lymph-spaces affected by dilatation. The results of dissection in Case 3 are of great importance, as showing that pressure on the thoracic duct or enlargement of the lymph-glands may be quite absent in the condition we are considering. Conversely, it may be remarked that in the affection termed "adenia," characterised by great hypertrophy of the lymphatic glands, there is no dilatation of the afferent or efferent vessels. Grave disease of the kidneys existed in two of my cases, but caused anasarca only in one, so that this state cannot be credited with much effect.

Green-street, W.

VACCINATION GRANTS.—The following gentlemen have been awarded grants for efficient vaccination:—Dr. W. Hutchinson, Chipping Norton, £10 9*s.*; Dr. H. H. Phillips, Reading, £8 19*s.*; Mr. J. A. Bright, Glastonbury, £9 11*s.* (second gratuity).

ON THE TREATMENT OF HÆMORRHOIDS, AND THE COMPARATIVE MERITS OF THE OPERATION BY THE CLAMP AND BY THE LIGATURE.

BY JAMES R. LANE, F.R.C.S.,
SURGEON TO ST. MARY'S HOSPITAL.

IN a paper by Mr. Henry Smith in the last two numbers of THE LANCET on the treatment of hæmorrhoids and prolapsus of the rectum by the clamp and cautery, founded on his experience of 400 cases, he alludes to certain criticisms of this procedure, and of his mode of advocating it, which have from time to time appeared. Amongst other things he says: "Just to show the extraordinary nature of the opposition which has been urged against the operation, I may state that one well-known surgeon wrote a long letter to THE LANCET denouncing the operation. Luckily for me, but most unluckily for himself, the writer let it appear that he had never once made trial of the operation."

Finding that I am the surgeon alluded to, and that these observations refer to a paper published in THE LANCET of Sept. 2nd, 1865, I feel it necessary to say a few words in reply, for the purport of my remarks is here completely misrepresented.

I have never "opposed" or "denounced" the operation with the clamp. In the paper referred to I was, on the contrary, very careful to disclaim all intention of depreciating it, believing it to be a sufficiently effectual method of dealing with the complaint, though I could not admit that it was better, and there was not a shadow of proof that it was safer, than a properly conducted operation with the ligature. My observations were directed against the unfair comparisons made by Mr. Smith between the two operations, and the extravagant laudations which he was constantly in the habit of bestowing on the one at the expense of the other—laudations which equalled, if they did not surpass, those which the profession had been accustomed to hear for some years previously from the same authority respecting the extraordinary merit of nitric acid in the treatment of this disease.

I also protested against the peculiar pathological doctrines enunciated by Mr. Smith in support of his views, when he asserted that "it is impossible for any surgeon conscientiously to tell his patient that there is no danger whatever after the ligature; but this may be *most truthfully stated* with regard to the operation with *my improved clamp*, if the most ordinary precautions are adopted to prevent bleeding." And again, when he said, "It is *not possible* that either tetanus or pyæmia, the two most formidable results of the ligature, can occur after this operation, because the condition which produces the former affection does not obtain—viz., the presence of an irritating substance round the nerves for several days; and pyæmia and other inflammatory affections will be effectually prevented by the exposed surface being deprived of its vitality and the veins being blocked up by the cauterisation." I ventured to point out that burns were a class of injuries by no means exempt from a liability to be followed by tetanus; and that it was an entirely new idea that the application of the actual cautery to cut surfaces was an effectual guarantee against pyæmia and "other inflammatory affections."

It is all very well for Mr. Smith to say, in effect, that as I had then never practised the operation with the clamp myself, I could not possibly know anything about it, and therefore that to any remarks of mine "no answer need be made." I submit, however, that it was not necessary to have performed this operation to appreciate the fallacy of the statements above quoted, or of the argument that, when a sloughing wound is made in the interior of the rectum with the actual cautery, the patient will be convalescent in one-third of the time required when a slough is made in the same situation with a ligature. I spoke, however, from the careful observation of a considerable number of cases operated on with the clamp by my colleagues. Since then I have repeatedly practised that method myself, and have witnessed it in the practice of others; but I see no reason, after ten years, to alter the opinion which I then expressed, that it is not safer or in any way better than a properly managed operation with the ligature.

The result of Mr. Smith's experience of 400 cases forms, without doubt, a very valuable contribution to practical surgery; and when we learn that out of this number he has only met with four deaths, it will, I trust, help to allay the vague apprehension which exists, even in the profession, respecting the risks attending operations for this disease. But I contend, at the same time, that he has not yet succeeded in demonstrating the superiority of the clamp and cautery over the ligature; and I do so on the following grounds. I have myself operated with the ligature, at St. Mark's Hospital and elsewhere, on more than 800 cases, with only three deaths; while Mr. Allingham, in his book published in 1871, states that he had then operated on 400 cases, without any death at all. With respect to pyæmia, no death from that cause has occurred in my experience, and Mr. Allingham states that 3210 cases in St. Mark's Hospital have not furnished a single example of it, though he refers to four cases of death from that cause in the practice of other surgeons after the operation with the clamp and cautery. I have no desire to maintain that the ligature possesses in this respect any peculiar advantage over the clamp, for I believe the tendency towards pyæmia will, in the long run, be found to be about equal in both; but the facts which I have stated effectually dispose of the peculiar immunity from pyæmia formerly claimed for the clamp by Mr. Smith, and also of his recently expressed opinion that "the complete sealing up of the vessels produced by the hot iron is the very best safeguard against pyæmia we can have." I am quite at a loss to see how vessels are more completely sealed up by cautery than by ligature; in fact, if the argument is worth anything, the ligature ought to be superseded by the cautery in surgical operations wherever practicable, in order to diminish the liability to pyæmic infection.

The most serious objection to the operation with the clamp is its liability to be followed by hæmorrhage. Mr. Smith himself now candidly speaks of this as "the result against which the surgeon has most to guard, and unless he takes very great care it is an occurrence very likely to take place." He mentions cases in which it took place to a rather serious extent immediately after the operation, and others in which it occurred a few days afterwards, when the bowels were relieved. In the latter it probably arose from the vessels being reopened in consequence of the slough being detached or disturbed during the passage of the fæces over the wounded surface—an indication that they are not so efficiently closed by cauterisation as when they are securely embraced by a ligature. A lesser degree of hæmorrhage seems to be not unfrequent, for we are told that "sometimes a good deal of blood is passed on the first action of the bowels, and on examination it is found that the greater part of this evacuation consists of dark coagulated blood, which had evidently slowly escaped into the bowel after the operation, and had remained there until the action took place," another indication that all the divided vessels are not completely closed by the cauterisation.

Were it not for the danger of hæmorrhage there would probably be little to choose between the two modes of operation; they are, in fact, only different ways of doing the same thing. From what I have seen I believe them to be as nearly as possible equal as regards the danger to life, and also as regards the ultimate result, the subsequent pain, and the time required for recovery; and I have seen nothing to justify the assertions that the method with the clamp is in any of these points superior to the other. But the danger of bleeding, which is confessedly a real one, is sufficient, in my opinion, on Mr. Smith's own showing, to justify the condemnation of the operation with the clamp in all cases where the disease is far advanced and large vessels are involved. One of the fatal cases which he records is significant. It is that of an elderly gentleman with very severe prolapsus. A very vigorous application of the cautery was necessary to arrest the bleeding, and the patient died on the fifth day from peritonitis. Mr. Smith does not doubt that the peritonitis was produced by the excessive employment of the cautery, and thinks it possible that he may even have injured the peritoneum. Surely in any case where there is a chance of such severe cauterisation being required, the operation with the ligature must

be the safer of the two. I have myself never hesitated to use it in the most extensive cases of disease, and have never yet had occasion to repent having done so. I have only to add, in the words of Mr. Smith, slightly altered, that if he does not yet see the merits of the treatment by the ligature so clearly as I do, I can only hope that his conversion may arrive in time.

Norfolk-square.

ON FATIGUE.

BY G. V. POORE, M.D.,
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THE recent discussion in the pages of THE LANCET on the effects of overwork, to which Dr. Wilks, Dr. George Johnson, and Dr. Savage have contributed their experiences, has induced the author of this paper to reduce his views on the same subject to a definite form, in the hope that they may prove interesting.

Work results in fatigue, and fatigue is a regular and constantly returning symptom experienced by all of us. Periods of functional activity invariably alternate with periods of repose, during which the waste caused by the exercise of function is repaired. We are indebted to Sir James Paget for having pointed out in his Croonian Lecture, delivered some years since before the Royal Society, that "rhythmic nutrition" is a law of nature; but, although the truth of this dogma is recognised on all hands, and may be said to be axiomatic, it has hardly received that careful consideration at the hands of practical physicians which it deserves.

Our whole life consists of a series of vibrations—periods of tension alternating with periods of relaxation; and, although the rapidity of these vibrations varies immensely, they are recognisable in all our acts, be they voluntary or involuntary. Let us look first to the "vibrations" of an organ the movements of which are placed entirely beyond our own control—the heart. Now, the rate of vibration of the heart is 72 per minute, and if the total period of each vibration be divided into ten parts, it will be found that four of these parts are devoted to the process known as *systole*, which may be looked upon as labour; three are occupied by the *diastole*, which, although hardly labour, is nevertheless exercise of function; and the remaining three parts are occupied by the *pause*, during which the heart apparently enjoys absolute rest from any exercise of function, and may be considered to be in a condition analogous to sleep. May we not apply the rate of action of this organ, which has been regulated for us, to our voluntary acts, and may not the heart be made to give the key-note, as it were, to many questions, personal and social? If we divide the day of twenty-four hours into ten equal parts, and give four of these to active work, three to functional exercise of other kinds, and three to sleep, we shall find that nine and a half hours' work, seven and a quarter hours' "relaxation," and seven and a quarter hours' sleep, is what a normal man may perform without injury to himself. "Eight hours' work and eight hours' play, eight hours' sleep and eight shillings a day," is said to be the dream of the trades unions, but, if they are guided by the heart, they ought to add an hour and a half to the period of labour, and take three-quarters of an hour from each of the other divisions of the day.

To continue with the consideration of our "vital vibrations," I may remark that it is universally ordained among civilised nations that once in every seven days there shall be a remission of labour and a change of occupation; and we further recognise the fact that it is highly advisable for those who are occupied in monotonous pursuits to break away from them at least once a year, and indulge in that variety of work which we call amusement. Monotonous repetitions of the same act are acknowledged, on all hands, to be the most potent causes of fatigue. "It aint the untin as urts im," said *Punch*'s horse-dealer, "it's the ammer, ammer, ammer on the ard igh roads;" and in this remark there was undoubtedly much practical wisdom which is very generally applicable.

Fatigue occurs directly we attempt to alter the rhythm of our vital vibrations by prolonging the periods of tension at the expense of the periods of relaxation, or by demanding for any length of time a quickening of the normal rate of vibration; and it is not unreasonable to suppose that every organ of the body has its "normal rate of vibration," if we could only determine what it is.

We recognise the fact that athletes who "over-train" run risks of cardiac troubles and loss of wind; that the man who, from any cause, is unable to sleep runs a serious risk of permanent impairment of health; and when we find patients pursuing their avocations too zealously we know that, if such offence against the laws of nature be persisted in, general paralysis or other form of "break-down" is likely to be the result.

Fatigue may be general or local, and both forms may be either acute or chronic.

That fatigue in all its forms is due to impaired nutrition there can be little doubt, and we shall find that the symptoms of chronic fatigue are often the prelude of definite and recognisable degenerative changes.

As to *general fatigue*, it is recognisable with ease both in its acute and chronic forms. There is a disability for performing either mental or physical work, and this disability is noticed first in work requiring attention and sustained effort, and, lastly, in those acts which have become automatic. The symptoms of general fatigue are referable usually to the brain and nervous system.

As to *local fatigue*, this, again, may be acute or chronic, and the symptoms of it are referable usually to the muscles; but we must always bear in mind that muscle and motor-nerve are one and indivisible, and that recent experiments have given great probability to the idea that every muscle is connected with a certain definite spot in the brain. When, therefore, we speak of a sense of fatigue we must necessarily be in doubt, notwithstanding the fact that the symptoms are referred to the muscle, whether brain, nerve, or muscle, one or all of them be really at fault. The symptoms of acute local fatigue are (1) *loss of power* to a greater or less extent. By too frequent or too prolonged stimulation the irritability of muscular tissue becomes exhausted, and it either refuses to respond or responds but feebly to the stimulus of the will; our power of adjusting the force of contraction to the act to be accomplished is lessened, and accuracy of movement and delicacy of co-ordination become impossible. (2) *Tremor* is a symptom of acute local fatigue, which everyone who has been called upon for extraordinary muscular effort must have experienced. (3) *Cramp-like* contraction is the symptom of local fatigue which disturbs our rest after a hard day's walking or riding, or muscular efforts in the ball-room or elsewhere. (4) The *pain* of fatigue is familiar to most of us, and is readily distinguishable from other forms of pain.

Local fatigue is caused far sooner by prolonged and sustained muscular effort than by repetitions of short muscular efforts having due intervals of relaxation between them. Anyone who has attempted to hold out a weight at arm's-length knows the impossibility of a long continuance of the effort, and it is proverbially true that standing in one position is to most people far more tiring than walking, the reason apparently being that in standing the muscles which support the body are subjected to a prolonged strain, while in walking we use the muscles on either side of the body alternately. The great increase of working power which we obtain by this alternating use of the muscles would seem to be one of the chief reasons for the bilateral symmetry of the body. Not only is sustained effort a far more potent cause of fatigue than repeated effort, but we find that, when fatigue supervenes, actions requiring sustained effort, be they physical or mental, are the first to fail, while automatic actions endure the longest, and in this respect local fatigue resembles general fatigue. It is quite possible to exhaust a muscle by artificial stimulation, and if one of the small interossei muscles of the hand be continuously faradised, it will be found that in a short time its power of contracting under any form of stimulus will be absolutely abolished. It is tolerably certain that the brain can have no share in artificial fatigue thus produced, and there seems good reason to suppose that in some people of energetic temperament the irritability of a muscle may be exhausted while the power of mental stimulation remains unimpaired.

Chronic local fatigue has causes and symptoms similar to

those of acute local fatigue, and there can be little doubt that this condition is a common cause of many of those chronic maladies which seem to result from overwork, and which are characterised by irregular muscular action. That some cases of writer's cramp, torticollis, and hammer-palsy, are due to chronic fatigue of the muscles employed, there can be little doubt. Duchenne and Mr. Brudenell Carter have pointed out how, in cases of short sight, the prolonged strain of the internal recti has caused troubles of vision and even cerebral symptoms; and quite lately Dr. C. B. Taylor, of Nottingham, has shown reason for including in the category of "fatigue diseases" a peculiar form of nystagmus occurring amongst miners, who try their eyes by working in the dark, and the author has little doubt that, attention having been directed to the symptoms and effects of fatigue, additional light on the subject will be forthcoming.

Wimpole-street.

CONCLUDING REPORT OF A CASE OF INNOMINATE ANEURISM.

LIGATURE OF THE LEFT COMMON CAROTID ARTERY, FOR ANEURISM AT ITS BIFURCATION.

BY FREDERICK ENSOR, M.R.C.S.,
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THE readers of THE LANCET of February 6th last will have noticed the report of a case of innominate aneurism treated by ligature of the carotid and subclavian arteries simultaneously. As it may be considered one of some surgical interest, and an example of a mode of treatment as yet on its trial, I think it right to publish the ultimate result of the case.

The operation was performed on Sept. 8th, and up to date of last report the man was going on favourably. The subclavian wound had firmly healed, and there was but a little stain of discharge from a granulating spot in the line of the carotid incision. The patient had little or no pain, the impulse was less, the bruit was less marked, and there was very trifling impediment to his deglutition, and he was allowed to go about the ward.

On Oct. 24th he very imprudently went out of his room with simply his night-dress on, remaining some half an hour out of his bed in the cold. The next morning he was taken with shivering, and had rheumatic-like pains generally. The pulse rose to 95, the impulse became very marked above the clavicle, and a little bleeding came on from the lowest part of the carotid wound. Ordered a mixture of carbonate of ammonia, chlorate of potash, and tincture of aconite, half a minim, every four hours.

Oct. 25th.—Pulse 88.

26th.—Pulse 80; impulse less. No pain.

27th.—Pulse 80.

28th.—Pulse 76. To take the mixture at eleven, four, and nine o'clock.

29th.—Pulse 76. Mixture at eleven and nine o'clock.

30th.—Pulse 75. Bowels too relaxed. To take two minims of tincture of aconite, twenty-five minims of chlorodyne, and one ounce of infusion of gentian, twice a day.

31st.—Pulse 92. Cough very troublesome last night, and after a paroxysm free hæmorrhage came on from carotid wound at 9 P.M. Applied lint soaked in tincture of iron, and strapping, and gave a dose of solution of morphia. This morning lies in a sleepy state. No more hæmorrhage; tumour pulsating forcibly; marked œdema of left hand; some œdema of feet.

Nov. 1st.—Pulse 95. Hæmorrhage again last night after a bad fit of coughing.

2nd.—Pulse 96. No hæmorrhage.

3rd.—Pulse 96. Coughs up a tenacious mucus.

4th.—Pulse 88; impulse feeble.

5th.—Pulse 86. Hæmorrhage at 5 o'clock this morning.

7th.—Pulse feeble. No particular pain in chest. Has had a little œdema of right eyelid for the last two or three days, and to-day the cornea looks cloudy, and is apparently perishing.

9th.—Cornea has given way; vitreous and lens escaped; eye collapsed. Face a little drawn to left; swallows without much difficulty.

10th.—Hæmorrhage again at 8.30 when in the act of smoking; arrested by the same means as before. Has no difficulty of breathing if he turns his head to the right, but it comes on if he turns it to the left.

11th.—Pulse weak and intermitting; complains of no pain, but, putting his hands together, says "his breath is like that."

12th.—Died comatose at 10 o'clock this morning.

Necropsy, six hours after death.—Body thin, but not emaciated. Base of neck above the collar-bones bulging, a plug of coagulum presenting at lower part of carotid wound. In removing the sternum and sternal end of clavicle careful dissection was needed to avoid tearing the parts immediately beneath. The ascending aorta was generally dilated, and arising from it was a semi-solid tumour, formed by the arteria innominata, the size of a small orange. Pericardium filled with fluid. Upper part of right lung symptoms of recent pleurisy. The right subclavian artery was obliterated, and adherent at ligatured part to the first rib. The aneurism had given way just below the ligature of the carotid; the pneumogastric nerve was flattened out on the aneurism. Adhesion of descending aorta to spine, tearing at one point, where a distinct little aneurism, size of a walnut, had corroded the bodies of the tenth and eleventh vertebræ. Lungs were adherent in parts from recent pleurisy, and filled with frothy mucus, but not consolidated. Dura mater adherent in several parts to hemispheres; pia mater opalescent, and evidences of chronic irritation as seen in hard drinkers; excess of fluid at base of brain. Brain-substance pale and soft. The "posterior communicans" artery on right side obliterated, or rather reduced to a fine fibrous thread. Liver very contracted, with marks of old inflammation on its capsule.

The man survived the operation sixty-five days. I think that, had it not been for his imprudence in exposing himself to the cold night air and setting up the acute attack of pleurisy, he would have survived longer; the paroxysm of cough put more strain on the circulation than the weakened artery could bear. But that he would have lived much longer is very improbable, as there was a spot on the posterior aspect of the aneurism which was as thin as a kid glove, and which would have soon given way. I think the man's life was prolonged by the operation—a questionable benefit. I have no doubt he was spared much suffering, both by the operation and by the use of aconite; for had it been left to nature, the tension and erosion of unyielding tissues would have caused constant severe pain, whereas from the time of the ligature of the arteries the pain was diminished in a marked degree; and the end was certainly a euthanasia in comparison with that which I have seen in other cases of aneurism.

In a younger subject, and with as distinct a diagnosis of innominate aneurism, I should not refuse a similar operation; but the diagnosis as to whether the arterial change is limited to the innominate is difficult—that it should be so limited is improbable.

As far as my experience goes, I believe that chronic alcoholism and syphilis are the two most important causes in bringing about that condition of artery which results in aneurism.

ALCOHOL AS A GENERANT OF THERMO-ELECTRIC CURRENTS IN THE SYSTEM: ONE OF ITS MODES OF ACTION.

BY JOHN MULVANY, STAFF-SURG. R.N.

SOME years ago, when the application of ice to the spine became popular, I performed a series of experiments for the purpose of ascertaining its mode of action. Commencing on the lower animals, and studying its influence on the bloodvessels of the brain, with the sympathetics integer or interrupted in their continuity, I soon became cognisant of the initiation of thermo-electric currents by thermal disturbance.

Searching for manifestations of electricity in man from a like source, I was obliged to experiment on an individual

whose appreciation of a glass of grog made him willingly submit to the discomforts of the spine-bags; and in him I accidently discovered that the deviation of the magnetic needle employed was always augmented by an ethylic potation. The same effects were also visible in other subjects, but my galvanometer was too imperfect to attach much importance to the phenomenon. When, however, four years later (1871), chance gave me access to a flash galvanometer belonging to the Indian Government, an instrument of the most marvellous delicacy, the circumstance recurred to my mind, and, having obtained the assistance of one of the ablest operators in the Indo-European telegraphy and a medical gentleman in the same department, I proceeded to investigate it in a manner the least compatible with error.

The existence or non-existence of electrical currents in the body first engaged our attention.

We observed that the formation of circuits was always attended by a manifestation of electricity; that this was not constant in point of force, but began soon after reaching its maximum to oscillate, the flash passing and repassing zero until it reached a point at which it remained stationary; further, that the maximum and stationary forces, though pretty constant in the same circuits in the same individual at different times, exhibited inequalities in strength in closely adjacent circuits and in different subjects, which could not be accounted for by extent of circuit, resisting media, or action on the poles, chemical or calorific. The dissimilarity in this respect witnessed in natives of India and Europeans was exceedingly curious and interesting, as will be seen by the subjoined specimen. In the respective circuits indicated the deflection to the right was as follows:—

	From tip of tongue to sinciput.	From tip of tongue to nape.
In a Mussulman	3°	8°
In a Goanese	2°	5°
In an Irishman	10°	22°
In a Scotchman	22°	25

Having accumulated a sufficiency of data to enable us to form an estimate of the influence of posture, rapidity of the circulation, direction of the head, ascertained the force of the earth-currents, and calculated the reducing currents from above downwards, we proceeded to try the effects of alcohol.

Mr. J——, aged thirty-three, being seated in a chair, a circuit was formed between the tip of the tongue and the nape of his neck. When sufficient time was allowed to the flash to cease oscillating and attain its stationary point of deflection, he took one ounce of brandy in three ounces of water. The electrodes were maintained *in situ* during deglutition, as well as throughout the entire observation, to guard against the error which might arise from the breaking and reforming of the circuit, and the flash was carefully watched. Before grog the galvanometer showed 15° right deflection, and during the twelve minutes immediately following, it did not register any appreciable alteration; but when thirteen minutes had elapsed, it suddenly showed a considerable access of electricity, which, with its subsequent behaviour, will be seen recorded in the following table:—

Before grog ... ... 15° right deflection.

	Minutes.	°	Minutes.	°	Minutes.	°
After grog.	12 ...	15	25 ...	32	35 ...	23
	13 ...	26	30 ...	25	36 ...	23
	14 ...	40	31 ...	23	37 ...	23
	15 ...	25	32 ...	23	38 ...	23
	16 ...	20	33 ...	23	39 ...	23
	19 ...	25	34 ...	23	40 ...	23
	20 ...	22				

At this period heat and fatigue obliged us to bring the experiment to a close. So closely did the results observed in others resemble those just detailed that it will suffice to briefly allude to two of them.

In Dr. G——, aged twenty-eight, strong and healthy, an ounce of brandy raised the deflection from 14° to 60°; and at the end of half an hour it remained stationary at 45°. In a Goanese servant it augmented the stationary deflection 10°—i.e., from 2° to 12°. The maintenance of a strong current for such a long time as thirty to forty minutes removed any suspicion of its being excited by chemical action on the poles; whilst its force served to eliminate terrestrial currents from amongst its sources (these were never higher than 3°); and as muscular quietude was as far as possible ensured and emotional excitation entirely out of the question, especially in the Goanese, an utterly unimpassioned subject, there is, I think, but one interpretation applicable to these experiments—viz., that the electrical currents indicated by the galvanometer over and above the stationary forces were clearly owing to alcoholic action. Their connexion is one of cause and effect. The phenomenon was, in fact, but a simple transmutation of force—a conversion of heat into electricity. And as the dynamics of organised as well as of inorganic bodies are precisely similar, and their forces equally modifications of motion; moreover, as heat and electricity are radically but expressions of different conditions of the same all-pervading ether, and herein so intimately allied in nature that they are mutually convertible, such a transformation can be conceived to take place within the body as readily as without it, and be equally appreciable under suitable conditions. That these conditions obtain in the system may be inferred from the analogy which a circuit of dissimilar nerves bears to one of dissimilar metals, and from the fact of the pupil dilating and contracting by the currents derived from the application of cold and heat to the neck when the radiating fibres of the iris have been paralysed by section of the sympathetic, and from other considerations that may be learned from the following experiment, which, in conjunction with Drs. M'Callum and Farrel, of Dunnville, Ontario, I performed in 1867. Having exposed a portion of the right hemisphere of a rabbit, and observed the effects of heat and cold applied to the spine, I rapidly performed section of the corresponding sympathetic about an inch and a half above the lower cervical ganglion. The pupil contracted to the size of a pin's point, the plica semilunaris passed over a great portion of the eye, and the brain protruded through the opening to a considerable size. Ice was now applied to the shaven neck. The protruded brain passed inwards with a jerk, the pupil dilated, and the semilunar fold was visibly retracted. Hot water having been substituted for the ice, all the former conditions were restored. We now passed a magneto-electric current through the cerebral portion of the divided nerve to the brain, and observed the brain recede, the pupil dilate, and the plica shrink in a manner precisely similar to that occasioned by the cold. The rapidity with which the radiating fibres of the iris, though paralysed by section of their motor nerve, responded to the application of heat and cold, together with the fact of the sympathetic having been cut above the cilio-spinal region, clearly indicated that their muscular element was not affected primarily by cold in its simple physical capacity as a negation of heat, nor secondarily through the circulation by vaso-motor action. Moving the ice downwards, the pupil ceased to be affected when applied below the sixth cervical vertebra; the involuntary muscular tissue of the iris, the vital magnetometer, showed by its non-action that the current took another direction, passing through a circuit below what may be called the cerebral one. *Ex uno disce omnes.* When, therefore, in the vital as well as in the metallic circuit, inequalities of temperature, local accessions or deperdition of heat, disturb that mutual harmonic ratio between the ultimate elements and their interpenetrating ether which conditionates electric equilibrium, currents are excited which in the one case, as in the other, will have a definite direction flowing from the part most elevated in temperature. When alcohol is taken, the principal site of disturbance will be in the encephalic centres, and its source the heat liberated by the condensation which ensues when it osmoses into the brain-cells; for as alcohol, in virtue of that marked electivity it exhibits for nerve-tissue, especially for the brain, passes from the circulation to be stored up in that important organ to an extent equivalent to $\frac{1}{11}$ of the weight of the whole cerebral mass (Lallemand, Perrin, and Duroy), the watery element of the brain-cells is brought within the sphere of its chemical affinity, and as water enters into their composition in an inordinately high ratio—80 to 85 per cent.,—a considerable action will ensue, and condensation, with a liberation of heat, will be the physical resultants. As in the apparatus of Marcus or Melloni, the heat set free will be transformed into electricity, which will

flow from the site of thermal exaggeration—that is to say, outwards, or in the direction it would take if a parallel condition were brought about by lowering the temperature at the opposite point of the circuit, which may easily be done by the application of cold to the spine. This is a powerful thermo-electrical excitant—so much so that, as will be seen by the following exemplum, it is capable of reversing the character and direction of the current when this happens to be negative. Bared to the waist, and the stationary forces of sundry currents noted by the superintendent of telegraphs, Dr. G—— threw a fine spray of ether on my spine. The following results were noted:—In a circuit from tip of the tongue to the sinciput, before the application of ether, the deflection was 10° left; after, 25° right. From tip of tongue to nape of the neck, before the application of ether, the deflection was 22° left; after, 20° right. From tongue to sixth cervical vertebra, before the application of ether, the deflection was 20° left; after, 13° right. Thus in this instance it changed the character as well as the deflection of the current, causing the flash to travel down to zero on the one scale, and attain a permanent altitude on the other. In persons whose primary deflection was right, the rise was instantaneous; in no case did the accession of force fall less than 10°.

The application of hot water reversed the currents, and caused left deflection, showing beyond a doubt that, however else local applications of heat and cold may act, they undoubtedly give rise to thermo-electric currents. But marked as were these effects of heat and cold, those of alcohol were not less so. An equally significant manifestation of thermo-electricity ensued on taking a glass of brandy-and-water as that already witnessed when ether had been used. Negative deflection was again changed into positive, the character of the current was reversed, and the stationary force at the end of half an hour showed the passage of a positive current of 10° force.

It is, I think, in this action of alcohol that many of its beneficial effects as a medicine are to be sought. The currents generated in consequence of its action on the watery constituent of the brain-cells go to supplement enfeebled nerve-power, to strengthen the action of the heart and equalise the circulation. This is well illustrated by the following sphygmographic tracings taken on myself when suffering from debility from heat and a recent sunstroke. No. 1 represents a pulse of 110, with low arterial

No. 1. Before wine.

tension, and heart weak and prone to palpitate on slight exertion. No. 2 depicts the same pulse reduced to 98 two hours after 4 oz. of port wine had been taken, and shows

No. 2. Two hours after wine.

the arterial tension raised as expressed by the rounding of the apicial angle and leaning upstroke, and the heart strengthened, as shown by the greater height to which the lever was elevated at the moment that the freedom of transmission through the capillaries was lessened. Had it acted simply as a cardiac stimulant, leaving the lax capillaries unaffected, or had it in the smallest degree augmented the then existing relaxation of these vessels, the heart's action would have been accelerated; or had it, on the other hand, simply confined its action to contracting the capillaries and raising arterial tension, the heart would not show an immediate accession of force as it did. But it acted on the entire circulation, contracting the peripheral capillaries, and thereby diverting the blood from the centrifugal direction impressed on it by the circumambient heat and humidity; it threw a fuller stream inwards, and rendered more active the circulation through the chylopoietic viscera and the internal organs, and thus brought about those conditions which are favourable in a high degree to nutrition and hæmatosis.

Hence, though alcohol cannot be considered to act in the ordinary manner of foods, and does not contain a particle of those nitrogenous elements which on assimilation go to repair the loss sustained through disintegration, its *rôle*, if judged by its results when given under appropriate conditions, is certainly that of a food.

In order that its administration be opportune there should be clear evidence of derangement of function springing from enfeeblement of the organic system of nerves, for then not only will the adventitious aid given by the thermo-electric currents it excites be profitably appropriated to the restoration of healthy function, but the brain-cells, owing to the condition of languor and hebetude which impaired nutrition entails on them, will admit a portion of their water to be abstracted with impunity; indeed, it is not difficult to imagine that such an abstraction, if temporary and slight, will not only be innocuous, but positively advantageous, by the brisker action, osmotic and exosmotic, incited by the presence of alcohol for the purpose of effecting its removal, and the restoration of the abstracted water giving a fillip to nutrition; whereas in health, when function, nutrition, and blood and nerve influence are harmonised by structural integrity, such an abstraction must interfere with their normal working, and the electric currents generated under these circumstances, being superfluous, will fail to compensate for the interference with the steady elaboration of nerve-power. Should the accession of force through electrical agency be the exact counterpoise of that lost by the nervous channel, the detriment will be transitory; but should the dose of alcohol be large, not only will danger arise in proportion to the extent to which the cells become exhausted of their water, but also to the extent that their vital functions are replaced by physical ones; for, judging from analogy, thermo-electric currents set in motion in the brain, if too powerful, will overpower and suspend its functions, just as the too powerful stimulus of exciting passions acting on its cineritious substance would do, did not an hysterical paroxysm, spasm, or convulsion act as a safety-valve; or as the cognate electricity developed by a battery, if passed through the vagi in sufficient strength, stops the heart's action, or suspends the play of the diaphragm acting on and through the phrenic.

The similarity of the galvanometric effects produced by the internal use of alcohol and the external use of cold is strongly suggestive of its applicability in cases where cold shower baths would be serviceable, but are not attainable; such as in great and moist heats. And here its moderate use is not only justified by theory, but the theory is verified by the results. During a long sojourn in the Indian Ocean and the Gulf of Persia I had ample opportunities of observing that those who became teetotalers lost in weight, *élan*, and muscle; the gastrocnemius visibly diminished in bulk; and fatigue became so easily induced that I found these men philosophising on the inutility of tiring themselves by scrambling up the mountains of Seychelles, instead of dashing at them *en étourdi* as their comrades did. Periodical weighings of some of the officers of my ship and myself gave the most indubitable testimony that the use of alcohol in a mean temperature of 85° tends to keep up the weight of the body. In one instance a reduction of seven pounds took place in fourteen days in an officer who only exchanged habitual temperance for teetotalism. The falling away in strength he experienced at the same time; and this, its tangible equivalent in weight, somewhat alarmed him, and caused him to resume his former habits. The recuperation of weight was as rapid as had been its loss. In temperatures of 85° and upwards, with an absence of wind, or at most but gentle zephyrs being felt, and with an atmosphere from 75 to 90 per cent. saturated with humidity, the elastic pressure of the atmospheric vapour often equivalent to 1′ and upwards of mercury, evaporation is so greatly impeded that perspiration pours from the skin in such a copious stream that it constitutes a serious source of enfeeblement. On one occasion I calculated, by placing a piece of blotting paper under a glass on the chest of a messmate, seminude, under a windsail, temperature 93°, that he was at the time sweating at the rate of 1 gallon and 1½ gill for the twenty-four hours. Such a drain as this from the blood necessarily interferes with nutrition, and reduces the weight of the body. And experience has taught me that in circumstances such as these—namely, when rapid loss of weight is an attendant on copious perspirations—alcohol may be safely

used in moderation. As it is under these conditions that I met with a permanent left deflection of the galvonometer —conditions benefited by alcohol,—I would be inclined to regard the presence of this phenomenon as an index of its suitability. Valuable information of similar purport may be gained by using the stethoscope and sphygmograph; for the circulatory system and the organic system of nerves are so interrelated that the condition of the latter may, to a great extent, be realised from the working of the heart and small arteries.

Southsea.

AN IMPROVED METHOD OF TREATING CERTAIN CASES OF CATARACT REQUIRING EXTRACTION.

BY JAMES VOSE SOLOMON, F.R.C.S.,

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IN some ophthalmic works which discuss the cure of senile cataract, the presence of a deep-set eye is given as a reason for the selection of depression or reclination in preference to the operation of extraction. I imagine no surgeon who has had experience in such cases will deny that a deep-set eye occasions some embarrassment in the making of the corneal section with a Graefe's or Beer's knife, especially where anæsthetics are not employed.

In a case recently operated upon at the Birmingham Eye Hospital, I improvised a simple and effective method of overcoming the difficulty under consideration by making with a pair of sharp scissors a perpendicular incision through the substance of the lower lid of about three-eighths of an inch in length and one-sixth of an inch from the commissure. Steady continuous pressure by means of a small sponge restrained the bleeding within innocent limits. The front of the eye having been now made easy of access to the knife, the section of the cornea was completed without difficulty, and the lens safely delivered without accident. No anæsthetic was employed. The lid was not sutured, but dressed with cerate instead of dry rag, and two turns of a narrow domett roller. The patient, a collier of sixty-eight years, recovered without a single painful or unfavourable symptom, and was discharged cured on the fourteenth day of the operation, with a clear black pupil, good vision, and perfect cicatrisation of the tarsal cartilage.

The above plan should have preference to any that interferes traumatically with the condition of the commissure, from the impossibility of its inducing abnormal contraction of the palpebral aperture or inversion of the lid (entropion) —accidents of no mean importance.

The operation of *reclination* has fallen into undeserved neglect, and, as a consequence, eyes are destroyed which would have had a good chance of vision if it had been selected for performance instead of extraction. A resort to it would be advisable where there is extensive fatty degeneration of the cornea and other tissues, and in subjects in whom the arteries have become seriously spoilt by atheroma, also in those who are affected with tertiary syphilis of old date. In the last two pathological conditions, intra-ocular hæmorrhage is the complication to be dreaded after the removal of the lens, or even upon the mere evacuation of the aqueous humour (no hypothetical case); in the first, death of the corneal flap within eighteen hours of the performance of the extraction is not uncommon.

Birmingham.

IN London last week 1471 deaths were registered, including 35 from measles, 96 from scarlet fever, 11 from diphtheria, 58 from whooping-cough, 22 from different forms of fever, and 138 from diarrhœa. No death from small-pox was reported. It is satisfactory to observe that the fatality from diarrhœa is declining, but the same cannot be said of scarlet fever. Two fatal cases of diphtheria occurred in St. Bartholomew's Hospital. The death-rates of some of the continental cities have lately been very high, Berlin, as usual, leading the list with a mortality of 48 per 1000 annually.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

TWO CASES OF RHEUMATISM; RECOVERY.

(Under the care of Dr. SOUTHEY.)

FOR the notes of the following cases and the accompanying remarks we are indebted to Mr. George Hastings, house-physician.

Two patients, lately lying side by side in Faith ward, suffering from rheumatism, presented such marked similarity in history and symptoms, both of which were anomalous, as to raise the suspicion that they were not ordinary cases of rheumatism, and were therefore of more than usual interest.

J. C——, aged forty-three, a married woman, was admitted on the 26th of April, giving this account of herself:—Eight days ago, after a violent domestic quarrel, her husband turned her out of the house, and she passed the whole night on the door-step. On her readmission in the morning, and after she had got comparatively warm and comfortable, fits of shivering came on at intervals. The next day the right wrist became almost suddenly swelled and very painful. This continued to be the great source of suffering until the time of admission. A copious vaginal discharge, accompanied by pain on passing her water, had been present for three weeks. It may here be mentioned that the husband is at this time suffering from a severe attack of gonorrhœa, and is being now attended by a medical man in the neighbourhood.

On admission, eight days after the onset of the pain and swelling of the wrist, she was fairly nourished, but anæmic; complexion fair. Right wrist-joint red, excessively tender, and much swollen. General hyperæsthesia over the whole of the body, but no tenderness or swelling of any other joints. There was an abundant purulent discharge from the vagina, with pain and scalding on micturition. Tongue coated with thick yellow fur; bowels confined. Complained of great thirst, with loss of appetite, and continued sleeplessness on account of pain in the wrist. No cardiac complication or history of previous rheumatism. Temperature 100° F.; pulse 90, feeble. The urine on examination was found to contain a small quantity of pus. The patient was ordered quinine, with iodide of potassium; a local application of chloroform and belladonna for the wrist, and an astringent lotion to the vagina.

The note of May 19th says: "Her general condition has improved, but the pain and swelling of the wrist-joint has not yielded to the treatment, and continues in a chronically painful and stiffened condition, in spite of varied local applications. Some slight pain is complained of in the right shoulder on extension of the arm. The vaginal discharge, however, has ceased."

June 3rd.—The patient has steadily improved since last note, although no especial alteration in treatment has been made. Was discharged at her own request, with no pain, but some stiffness of wrist, and very much improved in health.

E. P——, aged thirty-one, single, general servant, was admitted on April 15th into Faith ward with the following history:—Nine days before admission she had several long shivering fits, and on the following morning found that the left wrist was swelled and very painful. At the same time some slight pains were present in the ankles and calves of legs. She had had a thick vaginal discharge and scalding pain on micturition for three weeks.

On admission, she was a well-nourished, fair woman. On examination, the left wrist-joint was found much swollen, hot, very tender, and covered with a deep red flush, extending on to dorsum of hand. No tenderness or swelling of other joints. Heart-sounds clear and natural. No

previous attack. Temperature 99·4° F.; pulse 76, fair volume.

For three days after admission she had retention of urine, and was only able to void it in a hot bath once a day, the urination being attended with very great pain and scalding.

The urine, when examined a few days later, was found to contain about one-sixth pus.

The treatment ordered was similar to that of the other case.

By May 20th the intensity of the pain had passed away, but the hand and wrist-joint remained stiff and useless; great pain was also produced on any attempt at movement, no relief being obtained from fomentations, shampooing, or blisters. Discharge from vagina almost cured.

May 28th.—Has a slight attack of facial erysipelas, with moderate pyrexial symptoms, lasting five days.

From that time the stiffness and uselessness of wrist have rapidly disappeared without any local treatment.

Patient discharged well.

The points of analogy in these two cases are certainly clear:—The sudden invasion with rigors, so rapidly followed by severe local inflammation of only one joint, and that joint the wrist in each case. The presence of vaginal discharge of three weeks' duration, almost positively gonorrhœal. The absence of any complication or metastasis, of high or vacillating temperature. The more than usual chronicity and resistance of treatment, both local and constitutional, each being first attacks, and the trifling but curious coincidence of their accidental position side by side.

On careful examination of the notes of 202 cases of acute rheumatism in the female, treated in St. Bartholomew's Hospital, in not one is the presence of any vaginal discharge coincident with rheumatic inflammation of joints mentioned, or any history of the whole stress of the inflammation from beginning to end falling upon one joint alone.

MILLBANK PRISON HOSPITAL.

PERSISTENT HEADACHE; PARTIAL APHASIA; DEATH BY COMA.

THE following case is reported by Mr. Henry Brietzcke, F.R.C.S., assistant-surgeon, with remarks by Mr. R. M. Gover, medical officer.

The discussions which have taken place with reference to the researches of Drs. Hitzig and Ferrier, and the remarks recently made on the subject of intracranial disease, impart a special interest to the following case, which to some extent illustrates several points which have been of late brought prominently forward.

T. F——, aged fifty-two, a prisoner under sentence of seven years' penal servitude, was admitted into hospital January 12th, 1875, complaining of pain in the head on the left side, which, he stated, commenced suddenly five weeks before. On examination, there was a distressed look, and a tendency to shed tears. The man was well nourished, of a short and stout build, slept fairly well, and took his food well. When describing the pain he said it was severe, and always in the same spot, and that the skin was sensitive in that region. At this period there were no other symptoms.

On the 7th of April he stated that his sight was leaving him, also his hearing, and that he wished the "Lord would take him." The voice was muffled as if he was deaf, but he could hear when spoken to in a low tone.

With the ophthalmoscope the optic disc on the right side appeared very white, with an irregular margin and slight deposit of pigment on one side, and the retinal veins were large. In the left eye the retinal veins were much larger, but the disc was not irregular. Iodide of potassium was prescribed.

On May 28th he was seized with peculiar shudderings, occurring at intervals of about ten minutes, and with cramps in the legs, partial anæsthesia of face, neck, and upper extremities, but no loss of motor power. At this time slight ptosis of the left eyelid was noticed. A day or two after this the ptosis was more marked and the shudderings appeared to be started by a whiff of cold air or a scratch with a pen. The tongue was foul, and he vomited frequently. On the 2nd of June his condition was as follows: Slight drooping of left eyelid, but the other muscles of the eye supplied by the third nerve act well; pupils natural; no loss of sensation in the face, but the expression is different. Patient complains of numbness in the right arm; when he tries to walk he staggers, especially when the eyes are shut, but he does not fall or drag a leg; tongue foul; vomiting not entirely subsided.

June 3rd.—To-day he is in tears, and says he cannot speak well; he talks sensibly, but hesitates, and has some difficulty in selecting certain words. The shape of the mouth is slightly altered, especially when he talks; tongue furred; pulse quiet and regular; temperature 100·6° F.; second sound of heart prolonged; urine loaded with lithates; no albumen; cerebral macula moderately well marked.—*Ophthalmoscopic examination*—Left eye: Fundus red and cloudy, completely obscuring optic disc and vessels.—Right eye: Dark patch on outer and upper aspect of disc, extending nearly half round circumference. There is a hesitation in speech, and he takes some time to express himself, but he does not use the wrong word, and remembers his age, date of conviction, &c.

4th.—Complains very much of his right arm; it is not paralysed, but he continually rubs it, as if it were painful. He cannot express himself as he wishes, apparently forgetting the words "arm," "pain," "shoulder," but uses the first syllable of the latter, tries hard, and says "Oh dear!"

From this time delirium at intervals supervened, the temperature rose to 102° F. daily, and coma gradually set in, with subsultus and involuntary evacuations, and death took place on the 10th.

Necropsy, twenty hours after death.—The body was well nourished. Head: Veins of scalp full; vessels on surface of hemispheres full; a small quantity of yellowish serous fluid beneath arachnoid on surface of both hemispheres. On removing the brain, the dura mater covering the posterior part of the anterior fossa of the base of the skull on the left side—viz., the upper surface and posterior border of the lesser wing of the sphenoid—stripped off easily, was thickened and evidently diseased, and the part of bone described was roughened and bare, the anterior clinoid process was denuded, and felt sharp and irregular. On examining the base of the brain, the divided end of the internal carotid artery on the left side was gaping, its walls thickened, and involved with the middle cerebral artery in a dense and irregular membrane, which consisted of the dura mater and arachnoid adherent and incorporated. This thickened part corresponded in point of position with the bare and rough bone. The divided end of the carotid artery on the opposite side was collapsed and natural. The fissure of Sylvius and island of Reil were normal on both sides. The left middle cerebral artery ran through the thickened dura mater and arachnoid, but it was quite pervious, and, on slitting it up and examining with the microscope, its coats were normal, and there was no atheroma. The third nerve on the left side was involved in the thickened dura mater, and passed through it, but was not in any visible degree atrophied; the left sides of the pons Varolii and medulla oblongata were somewhat softer in consistence than the right, and this change extended to the fifth and sixth nerves, as well as to the eighth and ninth at their superficial origin. The softening, though slight, was clearly made out; there was some fluid in the lateral ventricles, but this was not excessive in quantity. The convolutions, corpus striatum, thalamus opticus, and other centres, were quite healthy in appearance. The lungs were engorged, small scattered deposit of tubercle, with pleuritic adhesions. The pericardium was closely and firmly adherent, and could not be separated without tearing the cardiac tissue, and the lymph was evidently of old formation; muscular tissue of left ventricle thickened, but firm in consistence and ruddy in appearance; valves healthy. Other organs healthy.

Remarks.—The first symptom of decided importance, as indicative of intracranial disease, was the very severe unilateral headache, with the significant accompaniment of slight ptosis on the same side. The character and severity of the headache aptly illustrate the remarks recently made by Dr. Moxon on this subject, and it is important to observe that this was the only symptom which was well marked during the earlier history of the case. The absence of other symptoms may without doubt be attributed not only to the limited extent, but to the site of the morbid pro-

cesses then in operation, removed, as it was, from the great motor centres. One of the most interesting features in the case was the stationary character of the symptoms, and the absence of any indications of progressive organic change up to within a few days of death; and it may be well to draw attention to the complete absence of paralysis, with the exception of the partial ptosis, up to the time at which coma set in. The aphasia was due, not to any difficulty in the mechanical act of articulation, or in the origination of ideas, but it resulted from an inability to seize upon or arrange the words corresponding with the thoughts he evidently wished to express. It will be noted that the left middle cerebral artery, though involved in the thickened dura mater, was pervious. There was no apparent lesion of Broca's convolutions, or of the corpus striatum, or of any of the great nuclei in the neighbourhood. The alteration in the consistence of the pons and medulla, which was confined to the left side, was probably acute, and unconnected with any vascular lesion or obstruction. It is probable that the disease was specific, that it commenced in the dura mater, and extended to the subjacent bone, producing caries. The lesion was situated in close proximity to the fissure of Sylvius, and the part of the brain about which so much has been written with regard to the faculty of speech, but although it was sufficient to produce a temporary aphasia, it had not extended into the cerebral substance or reached the motor centres, and this may account for the absence of paralysis. The third nerve was involved either in the outer wall of the cavernous sinus, or, more probably, in the sphenoidal fissure, as the branch which supplies the levator palpebræ was principally affected. The ophthalmoscopic appearances were very interesting; possibly pressure on the third nerve produced alteration in the nutrition of the eye through the lenticular ganglion, and thus caused an appearance as of a cloudy vitreous. The adherent pericardium was not diagnosed during life; the only note made was to the effect that the second sound of the heart was prolonged.

EDINBURGH ROYAL INFIRMARY.

SURGICAL CASES.

(Under the care of Mr. JOSEPH BELL.)

For the notes of the following interesting cases we are indebted to Mr. Holland J. Cotton, house-surgeon.

Case of Compound Comminuted Fracture of Lower Jaw; threatened Spinal Meningitis; Recovery.—Harriet L——, aged seventeen, a servant-girl of weak mind, was admitted on the 28th November, 1874, suffering from a compound comminuted fracture of the lower jaw on the left side, a lacerated wound over the patella, and a bruise over the lumbar region of the spine. The patient, in a state of temporary frenzy, had thrown herself from a window four storeys high, in one of the best squares of the city, but her fall was happily broken by coming in contact with the sloping roof of an out-house. Mr. Bell, who was sent for at once, found a lacerated wound, fully three inches long, over the left horizontal ramus of the jaw, which itself was shattered into several fragments and protruding from the wound. The cavity of the mouth was opened into, and several teeth were broken and hanging loose. Having removed all loose fragments of jaw, but with as little of the periosteum as possible, Mr. Bell brought the upper and lower fragments together by boring the bone and passing stout silver wire through it. The bleeding was easily stopped, although the facial artery was completely torn across. A portion of dental nerve too, which was lying exposed, had to be removed. The wound was then sewn up, a drainage tube being passed right through into the mouth.

For the next three nights the patient was in a most critical condition, suffering from convulsive attacks of the muscles of the face and limbs, and presenting most of the symptoms of spinal meningitis. At the suggestion of one of the physicians to the hospital, forty grains of the bromide of potassium were given five or six times in the twenty-four hours, with an occasional dose of chloral at night, instead of the fifteen-grain doses of bromide of potassium and chloral thrice a day which she had previously taken. This in a few hours had the desired effect of subduing the constant twitching movements and removing the sleeplessness. The patient having thus been brought fully under the influence of the drug, the large doses were discontinued, and only a moderate dose administered whenever twitching of the muscles or great restlessness occurred. The wound meanwhile progressed favourably enough, being daily washed with a weak lotion by means of the tube which communicated with the mouth. There was much swelling of that side of the cheek, and there was a copious fetid discharge. The wound over the patella healed slowly, but was quite superficial, whilst the bruise over the spine was followed by no discolouration from ecchymosis. For days after, convulsive movements, however, could at once be brought on by firm pressure over one spot along the spine; and though the patient was eminently hysterical, yet these movements were evidently involuntary.

The after-progress of the case was slow, the fragments of jaw still crepitating, and occasionally causing considerable pain. A sinus remained; but at length (nearly two months after the accident) the two pieces of silver wire, which had held the fragments together, along with several spicula of dead bone, were expelled from the external orifice. By this time the jaw was consolidating rapidly, much new bone being thrown out, and little inconvenience being experienced therefrom. In another month the sinus had almost completely healed, and the patient ceased to attend the hospital, her jaw being firmly united, and her face wonderfully little distorted.

Case of Acute Necrosis of the Ulna; Removal of the entire Shaft; rapid Reproduction; Recovery.—Marion M——, aged eight, was admitted on the 31st of December, 1874, suffering from acute necrosis of the right ulna, and an incipient lumbar abscess. On the eighth day of the same month she had complained of shivering and headache, then of pain in her right forearm; and on the third day a red line was noticed stretching up the inner side of the limb, with swelling as far as the elbow. A doctor was called in, and he, after a week's attendance, incised the arm in two places and evacuated some pus; but finding that the patient was daily getting worse, and that an abscess was threatening to form over the right dorsum ilii, he sent her to the infirmary.

On admission the child was very weak, and looked excessively ill, complaining of much pain in the arm and back. On Jan. 2nd Mr. Bell removed the whole shaft of the ulna, which was necrosed, leaving the periosteum entire as far as possible, and at the same time he evacuated some serum from the lumbar swelling by means of a trocar. The patient improved rapidly after the operation, regaining her appetite, and looking quite a different child. The lumbar swelling disappeared, whilst in the arm much new bone was thrown out, and the wound granulated healthily.

On Jan. 30th she became an out-patient, and came occasionally to have her arm dressed. The whole shaft of the ulna had been reproduced, and the movements of pronation and supination were practised daily. For some weeks after a sinus remained, through which occasionally spicula of bone escaped, but this finally healed up; and the patient was dismissed with an arm capable of perfect movements, the ulna being slightly thicker than that of the other arm. Of the lumbar swelling nothing remained but a thickening of the crest of the dorsum ilii.

Reviews and Notices of Books.

Traité de Thérapeutique Médicale, ou Guide pour l'Application des Principaux Modes de Médication à l'Indication Thérapeutique. Par le Dr. A. FERRAND, Médecin des Hôpitaux de Paris. Paris: Baillière.

THE relations of therapeutics are twofold. Its province is to determine the application of remedial agents to diseased action. On the one hand, therefore, it has to consider the disease, and on the other the remedy. Its study may be approached from either side. It is commonly taught in conjunction with materia medica. This method has a certain convenience, but it is founded on a connexion which is not, perhaps, the most important of its relations. A separate monograph on the action and use of each drug necessitates a minute subdivision of the subject of therapeutics, and a disjointed and most unsystematic treatment of each

part. It is upon this plan, however, that most treatises have been written, as, for instance, those of Pereira, Garrod, Gubler, Stillé, &c.; but the method has never satisfied the earnest therapeutist. The fragmentary and disjointed presentation of the subject, like a reflection from broken water, conveys a very imperfect idea of its scientific form; hence many attempts have been made to unite the scattered elements. Groups of remedies have been considered together, a common description of their action being given, and thus by describing together cognate subjects, and avoiding unnecessary repetition, better system has been secured. But it is evident that any discussion of therapeutics from the side of drugs must leave one half, and that the more important half, of the subject very imperfectly treated. What to administer under any given circumstances must always depend as much, or more, on the occasion as on the substance to be given. In each disease, in every variety of each, the needful remedial agent or the mode of its administration may vary, and it is in the due recognition of the significance of each indication for treatment that the more refined part of the science and art of therapeutics consists. It is this part which admits, we are told, of the most systematic treatment—which can be raised with most completeness to something like scientific dignity. This part of the subject is considered, it is true, in the systematic treatises on disease, but it is there subordinated to diagnosis and pathological anatomy, and is not discussed with that width of generalisation which its importance and capabilities deserve. To effect this is the object of Dr. Ferrand's treatise.

A little consideration will render it clear that the indications for treatment which different diseases afford are of so varied a character that any attempt at their generalisation must produce a system of considerable complexity. This is unquestionably the case in that which is unfolded in the work before us. The various "indications" for the treatment of disease may be grouped in three classes—those afforded by the nature of the malady, by its form, and by its local manifestation. These are termed respectively the "nosological," "physiological," and "anatomical" elements, all of which are presented by each case of disease submitted to treatment. As therapeutical indications these elements differ in value. The nosological element, the essential nature of the disease, is its effective, or rather its realised, cause. The physiological element is due to the reaction of the system against the malady, and determines the form of the disease. The local seat, secondary in point of time, which constitutes the third element, is of little value as an indication for treatment, since it is only a secondary fact in the constitution of the malady, and is of less significance as to the remedial agent to be chosen than as to the place and mode in which it should be used. The "nosological" element is intimately united to the idea of the specificity of disease, and furnishes an indication of greater value, as is shown by the instances in which there exists a specific remedy for a definite disease. But the rarity of the instances in which this is the case, and the purely empirical mode in which alone the indication can be utilised, narrow the part it can play in general therapeutics. The "physiological" element, that which determines the form of the disease, is the true ground of therapeutical indication. It is so termed because it rests on the physiological properties of the tissues, the reaction of which determines the form of the disease, but in its employment the effects of functional and of nutritive changes have to be carefully distinguished. We know the substances which, in a physiological condition, accelerate or retard the activity of this or that organic system; we know how far these substances preserve that property in the various derangements of these systems, to what extent they will excite or calm their elementary functions, and we can obtain, to a considerable extent, by the administration of this or that agent the effect we desire.

The practical application of these principles to various diseases involves of necessity the discussion at some length of many details in their pathology and symptoms. This constitutes indeed the main bulk of the volume before us. Various classes of maladies are successively considered—first, nervous affections, cerebral, spinal, and sympathetic; next, vascular affections; and, subsequently, troubles of secretion, of nutrition, alterations of the blood, inflammations, fevers, infectious diseases, constitutional affections, toxic states, and parasitic diseases. The several indications referring to each of these "elementary troubles" are successively studied: first, the signs which characterise each, the variations in intensity which it may offer, the consequences it may entail, its essential pathology, the various remedial agents which may influence it, and the more immediate indication in each case for their employment.

As an example of the system, the third part may be taken, the subject of which is the indication for treatment drawn from disturbances of the vascular system. The first chapter is devoted to the "indication furnished by vascular congestion." The elementary type of vascular congestion is first described—i.e., the general characters of the morbid process. Its "pathology" is then discussed, the nervous and other agents concerned being briefly spoken of. The second section is devoted to the "therapeutical indication," which is, in this case, the diminution of the afflux of blood in the distended vascular system; and the means by which this object may be attained are successively discussed—(1) hygienic methods, as food, posture, cold; (2) moderating remedies which may lessen the force of the blood and lower the temperature; (3) "contra-stimulant remedies," which, acting through the nervous system, seem to cause anæmia of organs; (4) stimulant treatment, when the congestion is associated with a sluggish circulation behind the affected part; (5) astringent treatment, local and general; (6) direct evacuant treatment, as by local depletion; (7) indirect evacuant treatment, as by purgation. An article follows on the "mediate indications" for treatment, furnished by the pathological state in which the congestion arose, as specific, diathetic, or degenerative disease. A final article on "application" contains sections on the various forms and seats of congestion, and their appropriate treatment: general congestion, and congestion of brain, spine, lungs, stomach and intestines, rectum, liver, spleen, kidneys, uterus, on congestions in fever, and on those secondary to diseases of the heart; and under each head the appropriate treatment is described. The remedies given as appropriate to renal congestion are to furnish the organs with the elements for ready secretion, by diluent drinks and milk, avoiding irritating substances, as alcohol, and giving salines and diuretics with great caution, favouring secretion from skin and intestine, and employing, when necessary, revulsive measures, as sinapisms, &c. In a similar manner, and at almost equal length, the phenomena of anæmia and hæmorrhage are discussed in their several relations. The other sections are treated in a similar manner.

The system thus sketched is elaborated in the work at detailed and cumbersome length, but with a completeness and a patience on which the author must be congratulated. The system itself is perhaps as thorough as the present state of our knowledge will permit. In working it out, however, the Materia Medica side of therapeutics has been necessarily altogether subordinated, so as to reduce the practical usefulness of the book far below its value as an

exposition of the theory of therapeutics. Some portions of the subject, also, closely connected in theory, are separated here, but this is perhaps inevitable from its wide and varied relations.

The Surgeon's Pocket-book: being an Essay on the best Treatment of Wounded in War. By Surgeon-Major J. H. PORTER, late 97th Regiment, Assistant-Professor of Military Surgery, Army Medical School, Netley. London: Chas. Griffin and Co. 1875.

THE materials of this handbook formed the essay for which a prize was awarded by Her Majesty the Queen of Prussia and Empress of Germany in the year 1874, and they have been specially adapted for the public medical services.

Its conspicuous merit consists, in our opinion, in the skill displayed in the selection and arrangement of its information. It contains little that is absolutely new perhaps, but the information, which is of the most practical kind, has not been put together, as is too often the case, with little discrimination or judgment, but with an evidently honest intention of giving the military and naval surgeon an epitome of the latest and best views, and the most trustworthy methods, of treatment of the wounds and injuries incidental to warfare. To write a good book on a subject of this kind is really a far more difficult task than is generally imagined, for its author must not only have been an industrious and critical reader, but a sagacious and good observer of what the requirements of the army surgeon are under circumstances and in emergencies which try the practical ingenuity and judgment of a man in a way that they are never likely to be tried in civil practice, where there cannot be the same demand for promptitude and decision, where every appliance is at hand, and where the after-treatment of an operation can be carried on leisurely, and without the dangerous risks that have to be encountered in the field from overcrowding, insufficient food, hurried dressings, and frequent changes of locality. The author has not written a manual on surgery, of course, but limited himself to those subjects which concern the military and naval surgeon, including a variety of matters about which medical officers will find it very useful to have a ready guide in field practice. Without being too diffuse, the author has not erred on the side of being too dogmatic. He has given the different views and varieties of practice inculcated by different authorities where these are not agreed, leaving the reader to exercise his own judgment. He has drawn on the writings of German, French, Italian, and American surgeons, as well as those of this country, for the materials of his book, which is besides well illustrated, and altogether a very creditable and useful production.

Popular Natural Philosophy. Translated and Edited from Ganot's "Cours Elémentaire de Physique," by G. ATKINSON, Ph.D. Second Edition. London: Longmans. 1875.—We are glad to notice this little book, which will prove useful to a wide circle of readers and teachers, since it represents about the amount of knowledge required for the Matriculation examination of the London University. It is divided into eight books, treating respectively of the General Properties of Matter, Hydrostatics, Gases, Acoustics, Heat, Light, Magnetism, and Electricity. It is admirably illustrated, and throughout most clearly written. It ought to be in the hands of the higher classes of all our public schools, and if the principal facts it contains were early demonstrated by experiment to those about to become members of the profession we should have a far larger number of accurate observers, and much fewer loose theories than at present.

GLASGOW IN 1874.

THE annual report upon the "Vital, Social, and Economic Statistics of Glasgow for 1874" has recently been issued by Mr. W. W. Watson, the City Chamberlain, and contains invaluable materials for a careful study of the growth and sanitary condition of this important city. The population of Glasgow, which in 1801 was but 77,385, was estimated at 508,109 in the middle of 1874. Between 1811 and 1821 the increase of population was equal to 46 per cent., whereas in the last two decades, 1851–61 and 1861–71, it did not exceed 20 and 21 per cent. respectively. The marriage-rate in 1874 in Glasgow was equal to 19·7 per 1000, and corresponded with the rate in 1873; the birth-rate was 39·4 per 1000, a rate which considerably exceeded that which prevailed in any recent year, except 1872; the death-rate was also exceptionally high, and equal to 31·2 per 1000; excepting 1871, so high a death-rate has not prevailed in any year of the past decade. In referring to this excessive death-rate in Glasgow last year, it may be noticed that Mr. Watson has revived a now all but exploded false theory, when he says, "We must not lose sight of the fact that a very high birth-rate, such as is exhibited above, leads of necessity to a heavy death-rate, from the very large proportion of the infantile deaths which occur in a dense manufacturing population." This fallacy, which was not long ago put forward by Dr. Letheby, was recently so conclusively exposed in a paper read before the Statistical Society that it is surprising to find one of its fellows reproduce it without any allusion to the controversy to which it gave rise. It has been proved beyond all doubt that in all populations in which high birth-rates prevail the effect upon the death-rate of the large proportion of infants and young children is more than counterbalanced by the high proportion of young adults, among whom the rate of mortality is low, and by the small proportion of persons aged upwards of sixty years, who are liable to a death-rate nearly as high as are children under five years of age. Sanitary condition being equal, the death-rate in Glasgow ought to be lower than in the rural portions of Scotland, where the birth-rate falls below 30 per 1000. The explanation of the high rate of mortality in Glasgow in 1874 is, however, not very difficult to discover. The remarkable severity of the weather in the latter part of November and throughout December caused almost universally high death-rates. Glasgow suffered to an exceptional extent, even for a large town. During October 1274 deaths were registered, while the number rose to 2101 in December. The greatest sufferers were adults and elderly people; among children and young people under twenty years of age the deaths in December exceeded those in October by 26 per cent., between twenty and sixty years the increase was equal to 119 per cent., and among persons over sixty years to 208 per cent. As regards the causes of death in 1874, we find that bronchitis and pneumonia killed 3332 persons, against 2934 in 1873, and that the fatal cases of scarlet fever showed an increase of 1072. Much has undoubtedly been done in Glasgow in recent years to improve its sanitary condition, and it would be manifestly unfair to take the result of so exceptional a year as 1874 as evidence that no real improvement has taken place. Mr. Watson very properly calls attention to the marked decline in the deaths from typhus in recent years. In 1864 and 1865 the fatal cases in Glasgow were 1138 and 1117; the average annual deaths from this disease in the ten years ending 1874 declined to 479, and the numbers in 1873 and 1874 were but 79 and 114 respectively. When we observe, however, that the annual death-rate from the seven principal zymotic diseases was equal to 7·4 per 1000 of the population in Glasgow in 1874, whereas it was but 3·3 in London, and averaged 4·5 in eighteen of the largest English towns, the sanitary work that has still to be done in the largest Scotch town is but too painfully apparent. We shall anticipate with much interest the report of Dr. James B. Russell, the medical officer of health for Glasgow, upon the exceptional mortality during 1874.

THE LANCET.

LONDON: SATURDAY, JULY 31, 1875.

The case of George Blampied, lately tried at Maidstone, shows in clear contrast the medical and the legal views of the mental condition that involves irresponsibility. It is of the last importance that this contrast should be well understood. And although the law as laid down by the judge (Brett) on this occasion was, as might be expected, exactly what has been well known to the medical profession, it is desirable from time to time to reproduce it on every occasion of its practical application. We will therefore briefly state the case, quote the judge's exposition of the law, and offer some comments that appear to be called for in the interests of humanity and justice.

George Blampied, a man of middle age, was indicted for the murder of James Catt. They were both employed in the dockyard at Chatham. A few months before the deed in question they had had an altercation, but had since been on apparently good terms. On the 16th of April they were at work together on the same mast, about six feet from each other, and the prisoner was using an adze. Suddenly those who were near the two men heard the sound as of a blow, and heard the deceased cry out "Oh! oh!" A workman ran to the spot, and found Catt lying down and the prisoner standing close to him with the adze in his hand. Another witness who came up saw the prisoner move from the deceased. This witness cried out, "He has killed Jemmy." On which the prisoner said, "No, he has killed himself"; and afterwards he added that Catt had taken up his adze and killed himself. The inspector of police said that the prisoner called to him and said he had something to report, and went on to say, "I have been employed in the mast-house, and when I turned round, James Catt, who was employed with me, took hold of my adze and struck himself on the head with it, seriously injuring himself." The inspector said, "He's dead, then?" The prisoner replied, "No, I don't know about that." "Where is he?" asked the inspector. "At the surgery," said the prisoner, adding, "he was a good mate, a good workman, and a good fellow." The inspector read over to the prisoner his statement, and he said it was correct.

These, then, are the bare facts. The homicide was undoubtedly the act of the prisoner. When arraigned, he pleaded "Not guilty." The defence set up was that he was insane. In support of this plea, the surgeon who attends in the dockyard stated that in April, 1874, the prisoner had been under his care for a few days for swimming in the head, and again for a few days in October for melancholia. The surgeon of the police at Chatham, who saw the prisoner in custody the day after the occurrence and conversed with him, stated that he asked the prisoner, "Do you know what you are here for?" He said he had knocked his mate on the head, "and the stupid fellow fell down dead." "Then you killed him?" said the surgeon. To which the man replied, "I knocked him on the head, and he fell down dead." This witness stated that in December, 1868, he had signed the certificate for the removal of the prisoner to Barming Lunatic Asylum as a lunatic, where he remained until December, 1872, when he was discharged as cured. Mr. Joy, the medical attendant of the gaol, stated that since the prisoner had been there he had had frequent opportunities of seeing him, and had conversed with him constantly, and he was of opinion that he was of unsound mind, mad upon the subject of religion. He thought, he said, it was a sudden act—an act committed from a sudden impulse.

The medical attendant of the Lunatic Asylum at Barming stated that the prisoner's grandfather was insane and also one of his sisters, and that when he was received there in 1868 he was suffering from melancholia caused by religious delusions. He was discharged as cured, and was believed to be cured, and the certificate of his discharge was absolute and unconditional.

The judge put the question to Mr. Joy—"Do you think that he knew, when he struck that blow with the adze, that it was likely to kill the man?" Mr. Joy replied—"No doubt he knew that, but I believe the act was uncontrollable." To the evidence that the man had been in a lunatic asylum, the judge observed that he did not see how this affected the question. "The man," he said, "may be mad—I assume that he is so in the medical sense of the term; but the question here is whether he is so mad as to be absolved from the consequences of what he has done. He is not so absolved, though he is mad, if he was not so mad as not to know what he was doing, or not to know that he was doing wrong." And, in summing up, the judge said, referring to the report of the judges on M'Naughten's case, "this had been declared to the House of Lords by the judges of England many years ago, and by the law so declared judges and juries were equally bound." It is unnecessary to cite the well-known terms of the report. Their purport is expressed with sufficient accuracy in the passage quoted.

It being granted, then, that it made no difference whether Blampied was mad or not, it is superfluous to insist upon the evidence that he was mad. We may, therefore, merge his particular case in the general question. We may start with the fact that the law of England, like that of all other civilised countries, recognises that irresponsibility is the inherent attribute of insanity. The admission of the plea of insanity establishes this point. *Primâ facie*, then, to establish insanity is to establish irresponsibility. Upon medical science it falls to make good this *primâ facie* case. And, having done this, it is the universal contention of those who have made lunatics and insanity their study by clinical observation and other methods of research, that they have done enough. They know the absurdity of attempting to reconcile reason and unreason, health and disease. They know that insanity, where it exists, leavens the whole mass. They know that a diseased organ cannot work healthily. Observation tells them that man, complex though he be, cannot be sane and insane—that is, responsible and irresponsible at the same moment. Cases, indeed, there are, but they are not common, in which monomaniacs, as they are called, may appear sane until their

particular delusion is hit. But it is a gross and dangerous, albeit a popular error, to conclude that these persons are really sound even in part. They are more or less under the dominion of their craze; it underruns the whole current of their thoughts, and may at any moment sway them irresistibly.

We do not know that the illustration has ever been used, but it seems not inappropriate to apply the creed of phrenology as the foundation of the legal doctrine of combined sanity and insanity. If we suppose the mind to be made up of distinct faculties—as perception, comparison, volition, and so forth,—each faculty having its own separate organ, it is easy to conceive that one of these faculties may suffer alone when its particular piece of brain is diseased. Lawyers, then, are phrenologists. We do not know how far they will thank us for this suggestion. It is, however, the best explanation that can be offered of their theory. They will find no support for it in true science. In truth, they do not appear to care to base their theory upon science of any kind. Their famous creed is pure dogmatism—an admirable example of the absolute *sic volo, sic jubeo*. When Mr. Justice BRETT emphatically said that the law, as he expounded it, "had been declared to the House of Lords many years ago, and by the law so declared judges and juries were equally bound," he really uttered what may challenge criticism. In the first place, what the judges declared was their interpretation of the law, and not the law itself. We hold ourselves at liberty to question whether this interpretation is the just one. In the next place, the fact that this declaration was "made many years ago," whatever the consecrating effect time may give in the legal estimation, is rather presumptive of error. Science is in its nature progressive; and this, a scientific question, clearly demands reconsideration. Law, on the other hand, built largely upon precedent and authority, is in its nature stagnant. But it must in the long run yield to the force of knowledge, and remodel its doctrine and practice in conformity with science.

The declaration of the judges hangs upon an impossible postulate. No man that has been at one time sane, and therefore trained in accordance with the modes of thought of his fellow-men, can, even on becoming insane, be freed altogether from the influence of that training. The sense that killing is wrong may remain. And it is transcendently absurd to look for a man so demented as not to know that striking another on the head with an adze is likely to injure or to kill him. Such a man can hardly be found in a lunatic asylum, and, *à fortiori*, can hardly be found out of one. He is not a creation of nature, but a legal fiction. Carried to its legitimate applications, the legal doctrine would abrogate the law of irresponsibility on the ground of insanity. The doctrine is therefore judges' law, not statute law.

Had juries invariably accepted this doctrine, and acted upon it, the exhibition would long before this have been so revolting that it must have been revised. Fortunately, juries, supported more or less by public opinion, have been, intermittingly, it is true, engaged in tempering this doctrine in practice. This moderating influence is always at work. The judges may still assert what they declared "many years ago." But it is less easy to induce juries to obey them. Through juries science often speaks. Sensible men will, in spite of strong dictatorial charges, take their medical and other scientific instruction from experts, and not from lawyers. In this way the famous interpretation of the law has been deprived of much of its evil force. It is becoming practically obsolete, and must at no distant date be given up even by the lawyers.

AT the Marylebone County Court a case was decided on the 20th inst. which is important in that it defines to some extent the fees to which a medical practitioner is entitled for his constant attendance upon an important case after surgical operation. The facts are briefly as follow:—

In the night of the 1st of March of the present year, a little boy five years of age, the son of Herr BEHRENS, the well-known bass singer of Her Majesty's Opera, was lying at the point of death from diphtheritic croup and laryngeal obstruction. Dr. WILDE, of Finchley-road, who was in attendance, summoned Dr. RICHARDSON, who came and immediately performed tracheotomy. The operation gave direct relief, but as it was foreseen that in the course of the case there would be great difficulty in keeping the artificial opening clear of secretion and false membrane, and as Dr. WILDE's professional avocations prevented his own constant attendance, the services of Mr. T. OTLEY LOVELL, who lived near, and who had assisted Dr. RICHARDSON in a similar previous case, were obtained. In order to give every possible chance of success at a moment so critical, Dr. RICHARDSON fitted up and left at hand his apparatus for artificial respiration after tracheotomy, in readiness to be used at any moment should the natural respiration cease, and Mr. LOVELL was left in responsible charge to carry out whatever was decided on at the different consultations that had to be held. In this duty he was relieved at intervals by his brother, also a qualified practitioner; and it was proved in evidence that the attendance thus rendered by the Messrs. LOVELL extended over one hundred and thirty-two hours. In the course of this time the tracheal tube was repeatedly blocked by secretion, and but for the constant and skilled attention of the watchers the child would have been suffocated; at one moment, in fact, the natural respiration of the patient actually stopped, and the application of the artificial respiration by Dr. WILDE and Mr. LOVELL brought back life when to all common observation the child was dead. In the end a complete recovery rewarded the anxious efforts of Dr. RICHARDSON and his colleagues. At the close of their attendance Mr. LOVELL sent in an account for his services, at the rate of five guineas for every twenty-four hours of attendance. To this Herr BEHRENS objected on the ground that the sum was too heavy; whereupon Mr. LOVELL at once reduced his terms to three guineas for each twenty-four hours, the sum total of his account being seventeen pounds seven shillings and sixpence for the whole attendance. This reduced account Herr BEHRENS still refused to pay, and hence the action at the County Court before which Mr. LOVELL, by his counsel Mr. PATERSON, contested his claim. In the defence no pretence was made that the plaintiff was unable to pay, neither was the sum named for the service rendered now pleaded as excessive, but an attempt was made to show that the whole period of

one hundred and thirty hours was not passed by the plaintiff and his brother in the sick room. It was urged that in the course of the attendance the patient was left for twenty-six hours, so that technically the attendance extended to one hundred and six hours only. The evidence of the Messrs. LOVELL proved that, except for short intervals, when they went home, and even then were ready to be called, they never left the patient unattended; and Dr. RICHARDSON came forward to give hearty testimony to the devotion and perseverance with which they had carried out every detail that had been entrusted to them. He also, together with Mr. TIMOTHY HOLMES, Dr. CLEVELAND, and Mr. WEBB, expressed to the Court the opinion that the original charge of five guineas for each twenty-four hours of attendance was a fair amount, and that the reduced fee of three guineas was most moderate. An effort to depreciate the value of the services rendered by Mr. LOVELL signally failed. "Do you mean," the advocate for the defence asked Dr. RICHARDSON, "that you took Mr. LOVELL into your consultations?" "Certainly," was the answer. "But you do not mean to say you accepted any suggestions from him?" "Yes, some very useful suggestions," was the instant reply. In the end the jury, after hearing the advocate for the defendant, the counsel for the plaintiff, and the summing up of the judge, decided at once for Mr. LOVELL for the full amount, and costs were allowed.

We have stated these facts at some length because they afford a decision on which what may be called the minimum fee for constant day and night attendance by a medical practitioner may in future be based. This point has never, as far as we know, been decided before. An attempt was made by the counsel for the defence to extract from Mr. HOLMES and Dr. RICHARDSON that the fee in such a case was a mere fancy sum; and the latter gentleman's fee for the operation and after-visits, which the plaintiff said he had not yet paid, was adduced in order to show that it was very much less than it would probably have been if the child whose life was saved had been the son of a wealthy man. But the argument did not prevail, and what we must consider a minimum rate of charge to persons who, though not wealthy, are certainly able to pay for important professional services, when they can be brought under the hand of the law, was thus defined.

A conspicuous feature in this trial, and one we cannot omit to name, was the summing up of the judge, Mr. Serjeant WHEELER. With singular lucidity of statement and decision his Honour told the jury that, in a judgment such as was before them, they must take into consideration, not merely the time of the service rendered, but the importance of the service. He had calculated that, for the duties performed in the hundred and thirty-two hours during which they had been substantially in attendance, the Messrs. LOVELL had asked for the sum of two shillings and sevenpence per hour. A surgeon working night and day at this rate, in ordinary practice, would not earn more than a thousand a year, and it could hardly be expected that, for a service so purely exceptional as had here been rendered, a less than ordinary fee should be demanded. In a word, if his Honour had understood practically what it is, in the way of service, to carry out the details of treatment of a terribly infectious disease for a hundred and thirty-two hours, to see for that time the peril of the patient, and to hear for that time the anxieties of parents and friends, he could scarcely have expressed with better feeling and judgment the weight of the responsibilities that attach to the professional attendant, or the spirit in which those responsibilities should be received. We venture, in the name of the profession, to thank Mr. Serjeant WHEELER for his kindly appreciation of us and of our labours. It is not often we receive so much consideration, and it is the more welcome in the present instance because it comes to us with the weight and calmness of judicial authority.

IN a letter to *The Times* of July 22nd, Mr. GEO. POLLOCK directs the attention of the public to the relative dangers of ether and chloroform as general anæsthetics. Whatever comes from the pen of Mr. POLLOCK is certain to secure attention, for the *vis familiæ* which has made his name so thoroughly a household word in this country is characteristically present in every sentence. The fact makes it the more regrettable that Mr. POLLOCK should have chosen the leading journal for his letter, in preference to the journals that are strictly devoted to the discussion of topics of a purely scientific and professional order. It is the wanton fate of all medical scientific communications made to the general newspaper that they call forth at once a number of weak and very irrelevant statements and opinions on which the public can form no correct judgment, which in the end excite alarm, and which confer no trace of reliable knowledge. The public finds itself suddenly in the midst of an argument without being supplied with the premises, and without being familiar with the authorities on whom it may rely. In one sentence, uncompromising in its reading, Mr. POLLOCK asserts that, while the administration of chloroform is by no means "unfrequently fatal, even when administered by experienced hands," the other anæsthetic—ether—"may be used most freely, is devoid of danger when pure, and has never been known to destroy life." In another sentence Mr. POLLOCK informs his readers that this "is a big subject," and, in continuance, he suggests significantly that it is a subject which judges, coroners, and magistrates may have to deal with in connexion with the practice of the professors of the healing art.

We believe that Mr. POLLOCK has stated one side of the "big question" with too much emphasis; and that he has omitted to mention many facts on the other side which would materially modify any opinion that would be delivered by a judicial mind upon all the facts. The relative safety of ether and of chloroform, as at present understood, is, as we have already admitted on former occasions, in favour of ether. This has been the experience of all of us who, from the first introduction of anæsthesia, have followed the history of the subject. SNOW, who commenced by administering ether and moved from that agent to chloroform, admitted the greater safety of ether; and, with his usual fondness for simile, described ether as the tinder-box and chloroform as the lucifer-match—by which he meant to convey that ether is the clumsiest and at the same time the safest agent. But these admissions, which after all are based on imperfect

data, are very different, as they deserve to be, from the out-and-out statement that ether administered for anæsthesia has never destroyed life. Within a few months after its introduction—viz., in July, 1847—a pure death from ether took place at the Hôtel Dieu d'Auxerre; and in the course of the same year other deaths, assumed to be from ether, and certainly on as good evidence as has been often assigned since in relation to deaths attributed to chloroform, were reported in this country. The effect of these untoward events at the time they occurred was startling, and shook the confidence of the profession in the use of ether so seriously that if chloroform had not been introduced we doubt whether general anæsthesia would have held its ground at all. Chloroform came, we had almost said, to the rescue, and with its employment a given and calculable mortality. At length the mortality, made matter of certainty by repeated experiences extending over twenty-six years, having created a natural alarm, the discarded ether has reassumed to some extent its original position, to receive in its turn its original estimate, to be proved much less handy and much more expensive than chloroform, and to be attended with death from or during its action. Within a period of a few months, in this kingdom alone, a youth has died simply from the effects of ether; two adults have died during its action, if not from it; and more than one case, of all but fatal character, has been observed.

It follows, then, that the absolute safety of ether is not proved, and though we incline to think that it is safer than chloroform, the wish that it is may, after all, be the parent of the belief. In plain truth we have no data on which to base a perfect conclusion. Ether has been administered in so infinite a number of times less than chloroform that it is impossible to reckon the relative mortalities from the two agents. If we were to compare the chloroform administrations by a hundred to one over the administrations of ether we should certainly not be exceeding the mark, and although we believe that chloroform kills at the rate of one to every two thousand five hundred who inhale it for anæsthesia, we are able to arrive at this approximate number by a calculation only of a number of cases of which no tithe has been presented on the side of ether. We doubt whether up to the present time one hundred thousand administrations of ether could be shown; and if all the deaths during its administration for that number of times were recorded, they would still afford insufficient data for comparison with chloroform. We deal, therefore, with no more than a general impression when we say ether is safer than chloroform. Such an impression is commonly correct, but it is not exact, and in accepting it a considerable licence must be permitted, for it may be wrong. Any way, the time has not yet arrived for putting it forward in the light of a proven fact of science, nor will the time arrive until the practice of the administration of ether shall become as universal as is now the rival practice of the administration of chloroform.

We are driven unwillingly to make these comments on Mr. POLLOCK's forcible letter. Neither ether nor any other known general anæsthetic yet discovered is absolutely safe when it is administered to the extent of completely destroying sensibility, and it is but fair to all our brethren, who, guided by the worthiest and best intentions, are obliged to administer the different agents for extinguishing pain, to declare this truth.

IT is satisfactory to know that the attention of the practical mind of Mr. CROSS has been directed to the case of the child EMMA PLAIN, who was attended by an unqualified practitioner at a dispensary in Islington, and who died under the treatment there received. In answer to Mr. O. LEWIS, the Home Secretary said "his attention had been called to the verdict of the jury at the inquest upon the body of EMMA JANE PLAIN, aged nine months—viz., that while they found that the death was from natural causes, they pointed out the fact that the deceased received medical treatment at a dispensary in Copenhagen-street where medicines were administered by an irresponsible unqualified medical practitioner. This was an unfortunate case. All he had to say about the state of the law was that the question now raised by the hon. member was discussed at the time of the passing of the present Act, whether absolutely unqualified practitioners ought to be allowed to administer medicine. The law was, that if an unqualified person held out, in any shape or form, that he was a qualified practitioner, he was liable to punishment; otherwise not. As the question was one which came within the province of the Lord President of the Council, he would call his noble friend's attention to it."

It is to be hoped that the Lord President will not think the evil illustrated by this case a slight one or one unworthy of the attention of the Government. It is, in truth, a very extensive and extending evil. A similar case has been brought to light in an inquiry by Mr. DONALDSON, the deputy coroner for the Eastern Division of Middlesex. In this instance an infant child named HERBERT WILSON became ill, and was taken by its mother to Bethnal-green Dispensary. The fee necessary for a week's attendance—viz., 2s. 6d.—was paid. The child was visited by Mr. SMYTH, and was supposed to recover under his care. It fell ill again, however, and was taken by the mother to the Hospital for Children, where the medical officer seemed to advise her to have attendance at home. Thereupon she sent to the dispensary again. On this occasion she was attended by a properly qualified medical man, instead of Mr. SMYTH, who was unqualified, but who told the jury that he was part proprietor of the dispensary, and had "a properly qualified medical man, Mr. M'GILL, who did half the prescribing, and the remainder was done by himself as assistants would do." We hope Mr. M'GILL feels flattered by occupying this relation to Mr. HENRY BEARDMORE SMYTH. Finally the child was seen by Dr. SARVIS, the medical officer of health for Bethnal-green, who considered it to be labouring under pneumonia after measles, of which it died. Whatever Mr. M'GILL's feelings may be in regard to his relations with Mr. SMYTH, it is a serious thing, at variance with the interests of the people and with the intentions of the Legislature, that they should be thus deceived at a quasi-medical institution purporting to supply them with duly qualified medical attendance. Mr. BEARDMORE SMYTH himself says that half the work is done by himself, and that he is not qualified. Just as Mr. M'GILL might speak of having an unqualified assist-

ant, Mr. SMYTH speaks of having a qualified medical man. This case is different from that of a general practitioner who has an unqualified assistant acting in strict subordination to himself. Here the unqualified man is part proprietor, and does half the work. We are not going to argue that if this child had been attended throughout by a properly qualified medical man, the insidious accession of the pneumonia would have been perceived and prevented. Such cases are difficult enough of treatment even for qualified medical men; how much more so must they be to the unqualified. But the point of these cases is that, in a way not contemplated by the framers of the Medical Act, the public are in fact deceived by the use of certain words on signboards or on brass-plates. The Medical Act forbids specifically the false use of titles, such as that "of Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner or Apothecary," or any other name, title, or description implying that the person using them is registered under the Medical Act, or that he is recognised by law as a medical man. Men like Mr. KEB and Mr. HENRY BEARDMORE SMYTH know this very well, and avoid the use of such titles. But they set up a sign on their house, and call it a "dispensary" or a surgery, and announce hours of consultation and terms of attendance; and it is amply proved that whole classes of people, whole neighbourhoods, are deceived by these expressions into thinking that they are receiving the advice and the medicines of men with the *imprimatur* of the State upon them. It is for statesmen to consider whether the law cannot be so amended as to make it illegal to give misleading titles to houses or buildings, or in any other way to get money out of people for medical purposes under false pretences. A surgery implies a surgeon, a dispensary a qualified medical practitioner capable of giving medical advice, and such words mislead the public almost as effectually as the false use of personal titles. The members of the medical profession are greatly injured by such devices, and it is hard that they should be, considering at what a cost they purchase medical titles and privileges. This may seem a slight matter to our legislators, but they cannot disregard the proof or think lightly of the fact that cases of serious disease are taken to perfectly unqualified practitioners under the delusion that they are regular medical men, and that the present state of the law is such as to permit of such deception being practised with considerable chance of impunity.

THE Middlesex magistrates, in the exercise of their wisdom, determined, at their last meeting, held on July 22nd, to refer to the Parliamentary Committee an amendment of the Coroners' Act. The chairman, Captain MORLEY, trusted that the Committee would recommend that coroners should be appointed by the Crown, that they should be paid by fixed salary, that they should be barristers-at-law, that the Courts of Quarter Sessions should have the power of refusing to pay the costs of unnecessary inquests, and that the coroners should be set in motion by the police and should direct their warrants to police constables. If the Middlesex magistrates would have the prudence to extract the clause for suggesting barristers as the judges most fitted to inquire into causes of death, and the modesty to add a clause that would exclude themselves and all other magistrates from interference with coroners, the recommendations would be of value. But whether Parliament will ever be persuaded to take the power of election of coroners out of the hands of the people, and place it in those of the Crown, is a question which the Middlesex magistrates may take time to consider. It will fill up with advantage all the time during which their own magisterial existence is permitted and sustained.

Annotations.

"Ne quid nimis."

THE NEW CHILDREN'S HOSPITAL.

ON Monday the new Children's Hospital in Great Ormond-street, which has just been completed after designs by Mr. E. M. Barry, was thrown open for a "private view," and was visited in the course of the day by large numbers of persons.

There is not room for two opinions as to the very high architectural merits of the new buildings, which cannot be said to belong to any one style of architecture, but combines many of the best qualities of Byzantine and Tudor. The material is of red brick, and much use has been made of terra-cotta for ornamentation. Although the building is ornamented in the highest degree, ornament has almost everywhere been made subservient to utility, and the public will have no cause to complain that their money has been frittered away upon purposeless decorations.

The building is oblong in form, and consists of a central block (which contains, in addition to the hall and staircase, the chapel, operating theatre, ward kitchens, and officers' rooms) and two wings, which are entirely devoted to the patients' wards. The wards are floored with teak, which is to be semi-polished; the walls are of glazed brick of different colours, and the ceilings are of white Parian cement. Beneath the white ceiling, and at no great distance from it, hangs the gas-lamp of seven burners, which in a very short time must blacken the white Parian which at present looks so cleanly. Why some modern form of gas-lamp which carries off the products of its own combustion was not chosen we are unable to say. The heating is partly by hot-water pipes, and partly by a Galton's stove in the centre of the ward. The ventilation is by the windows, of which there is a row on both sides, and by special ventilating apertures above and below them, and also in the ceiling. A great feature in the construction of the wards are the balconies which flank them on either side, and which will serve as charming airing-grounds for the little patients. The closets, lavatories, and sinks are quite outside the wards in octagonal towers, which have their own arrangements for ventilation, and which are one of the chief ornamental as well as sanitary features of the building. In the roof of each closet, just over the gas-jet, is the aperture of a flue which runs in the wall of the turret to its uppermost chamber, which is elevated several feet above the general level of the building. Ventilating shafts from the soil-pipe of each closet are also carried in a similar manner to the upper chamber of the turret, which is kept always heated by a stack of iron pipes, which are in constant connexion with the hot-water service of the hospital. In this way a constant up-draught is maintained, and a thorough ventilation of the closets and soil-pipes is ensured. In winter the wards are supplied by a constant stream of heated air pass-

ing through shafts which are in direct communication with the open air into the centre chamber of the Galton's stoves, which stand in the centre of the ward. The drains of the hospital enter the main sewer at two points, which are each guarded by double traps; and between the traps there is a ventilating shaft, which runs with the other sewer and closet ventilators to the upper heated chambers of the towers. The attic storey is devoted to the nurses' bedrooms, which struck us as being none too large, the cubic space provided for two nurses being on a rough but liberal calculation about 1400 ft.

There are all the best modern appliances for the saving of labour in the shape of pneumatic bells, speaking-tubes, cooking-ranges, dust-shoots, coal-lifts, and dinner-lifts, the attention paid to details of this kind having been most minute. The mortuary and post-mortem room are not complete, and the resident officers' apartments were not open for inspection.

The out-patient department, with the dispensary and kitchen, is in the basement, and every effort has been made to facilitate work and prevent confusion. The hospital provides accommodation for 112 patients, and contains special wards for whooping-cough and cases of infectious fever which may occur among the inmates, as well as private wards for cases requiring absolute quiet or special attention.

One of the great attractions to the visitors on Monday was the chapel, which is a perfect gem of ecclesiastical decoration, in which alabaster, mosaics, stained glass, and metal-work vie with each other to charm the eye. This chapel is the gift of an anonymous benefactor, and no part of its decoration has been paid for out of the ordinary funds of the institution. There can be no doubt that in its new building the Children's Hospital will pursue its career of charitable and scientific utility for which the public and the profession have alike been its debtors for the past twenty-five years.

NURSING.

THE publication of a Report from the Sub-committee of the National Nursing Association recalls our attention to this very important subject. This report shows in detail, and most truthfully, how many lives in all grades of society are annually sacrificed because persons cannot be found to carry out skilfully and faithfully, as well as tenderly, the advice and directions of the physician. This want affects rich and poor alike. Many of those who live in palatial establishments, and are able to obtain anything and everything that money will buy, have experienced the sad fact that the lives of those nearest and dearest to them have been lost because the careful conduct of the nursing was not properly provided for. And the same want exists in the homes of the poor. If we compare ever so roughly the work done in the out-patient and internal departments of our large hospitals, and consider that the patients prescribed for in the former are wholly without the means of obtaining one important essential to recovery—skilled attendance,—it will show, if no other reason existed, that a large proportion of the advice and medicine given is hopelessly wasted. The report, which appears to be chiefly the work of Miss Florence Lees and Mr. Rathbone, aims high, and a programme is sketched out that will require much continuous labour and skill to carry out successfully. A training school is proposed in close connexion with a hospital, a district home in the vicinity of the hospital, and responsible to the training-school, which home shall, so to speak, nurse the district immediately surrounding it, and also send out nurses to other districts. A year's hospital training and three months' work in the "head quarters" district home are to qualify for the certificate of competency. It appears to us that, in the first instance, a beginning might be made by requesting all the chief hospitals, both in London and the provinces, to receive a certain number of probationers, who would, under proper supervision, acquire the rudiments of their art, and after an interval proceed to the training-school for special as well as practical study. Of one thing we may be sure, and it is that all hospital authorities should aid and second, as far as possible, the efforts of this Association. The work will of course be conducted apart from all sectarian or special religious proclivities, so that on this score no opposition can be fairly raised by the governing body of any institution. But we would repeat in effect the observations made in May of last year, when the Association was commencing preliminary arrangements, that, in our belief, the raw material for nurses is not so abundant as appears to be generally supposed. Nursing is laborious and risky, and involves a large expenditure of patience, tact, and temper. But the best material for the manufacture of good nurses will probably be found among the middle classes, in which there are hundreds of well-bred and fairly educated women who, in making this work their study, may ennoble it and themselves at the same time, and relieve a vast amount of human suffering in all walks of life.

THE CHESTER INFIRMARY.

Two questions of some delicacy and much interest have been discussed at a special general meeting of the governors of the Chester Infirmary. One took the form of a proposal to reduce considerably the number of recommendations for in- and out-patients allowed to subscribers, in consideration, first, of the greater cost of everything used by the sick, and, secondly, of the principle (happily becoming more and more recognised) that true charity consists in supporting an institution where the neediest are helped in preference to the less needy. In the case of hospitals, clearly the only judges of the fittest cases must be medical men. To the credit of the governors of the infirmary, this proposal was carried.

The next question came up as a result of the resignation of Dr. Waters as a physician of the infirmary, after an honourable service of twenty-five years. It had reference to the qualifications of candidates for the post of physician to the hospital. The bye-laws require that the candidates shall be graduates of certain universities. The rules which prescribe the qualifications of physicians in country infirmaries —and in London hospitals, too, for that matter—are just a little out of date in this advanced period of the world, and in this age of reciprocity in British medical qualifications. In some London hospitals, for example, it is of no use for a graduate of London or Edinburgh to apply for a physicianship unless he is also a Member of the College of Physicians of London. This rule is good for the London College, but bad for the hospitals, and perfectly indefensible on principles of justice. It is a relic of protection and a bygone period. The Chester rule seems far more defensible. A guarantee of some extra examination and education is demanded, but it is accepted from any quarter of the kingdom in the natural form of a degree in medicine, which can scarcely now be acquired in Britain without some pains and merit. A more doubtful law, though only of custom, has hitherto obtained in Chester. For a long time the *lex consuetudinis*—not the written law of the hospital—has required the holder of the office of physician to abandon general practice and practise as a pure physician. Such a law may operate very hardly in a provincial town. As a rule, hospital physicians should gradually abandon competition with general practitioners. Such is the *prestige* and pri-

vilege of their position that it is obviously both fair and dignified that they should tacitly take it for granted that they are not expected to practise as general practitioners; but to expect a young physician all at once to abandon general practice for an infirmary appointment is unreasonable. Such self-denial is not expected of hospital surgeons. There are some towns in which eminent hospital surgeons give advice and medicines on very low and undignified terms. The law of custom in Chester was nearly universally condemned. We think rightly so. Henceforth no meritorious general practitioner will be hindered from competing for a physicianship by the alternative of having summarily to abandon his practice, perhaps the work of many years of toil.

THE DISPOSAL OF THE DEAD.

OUR Transatlantic neighbours, if not original writers, are very excellent and industrious compilers, and we have before us an article on the relative advantages of cremation and burial that, as to the bibliography of the matter, assuredly rivals any treatise on the same subject that has up to the present time been published in this country. The author, Dr. J. F. A. Adams, of Pittsfield, Massachusetts, describes *seriatim* the history of cremation in ancient and modern times, intra-mural interment, and interment at the present day, the object being to show whether cremation is a practicable and safe method, and if so, whether the evils necessarily resulting from burial are so great as to demand a change. Time and space do not permit us even to recapitulate here the historical aspects of the article, though they are exceedingly interesting, and well worthy of perusal. The author having described the various methods of cremation as proposed in modern times, and particularly those devised by Sir Henry Thompson and Siemens, concludes that it may be made a complete, rapid, and inexpensive process, in no way offensive to bystanders, nor liable to contaminate the general atmosphere. It is enough to state that the history of intra-mural interment and its effects is largely drawn from the reports of Mr. Edwin Chadwick, Professor Brande, and others, made between 1843 and 1851, "the effect of which was so convincing that a change was at last brought about by legislative enactments." The notes on interment as practised in the present day include the regulations prescribed by law for the depth of graves in all European countries as well as in America, and the special rules in force in England. An effort was made by the author to discover the influence wrought by extra-mural graveyards on the quality of the well-waters surrounding them, as influencing the origin and spread of epidemic disease. Categorical questions referring to these two specific points were sent to upwards of four hundred scientific persons in the States and in this country. An analysis of the replies is given, and some (notably that by Mr. P. H. Holland, Medical Inspector of Burials for England and Wales) are printed in full. As a result (and an important one as bearing upon cremation) the author is "greatly surprised at the small amount of evidence we have been able to gather of any positive injury known to result from burial-grounds." Five cases only of possible or probable harm done by proximity of dwelling-houses to cemeteries are cited as having occurred in America, and two or three only "possible" cases in other countries. Great stress, of course, is laid upon the recorded opinions of Mr. Holland and Dr. Cameron of Dublin, both of whom are, as our readers know, firm believers in the absolute harmlessness of burial if properly performed. The third question put to correspondents related specifically to analyses of well, brook, or other water obtained from the vicinity of cemeteries. The deduction drawn from fifteen analyses was that wells in or near cemeteries enjoy an especial immunity from contamination, inasmuch as their position renders them less likely than others to be tainted by privies, drains, and cesspools. The author says that Fleck's examination of Dresden wells has led him to the same conclusion, and adds, "We have been unsuccessful in obtaining a single example of disease presumably induced by water contaminated by the proximity of burial-grounds, although the evidence that a great amount of disease, especially typhoid fever, is induced by drinking water polluted by drains, privies, and cesspools, is constantly accumulating." In other words, a living man in sound health is far more to be dreaded as a disease-producing agent than is a dead man buried with ordinary care.

Dr. Adams, obviously enough, arrives at the conclusion that "cremation is an innovation not demanded in this country (i.e., the United States) on sanitary grounds, but there is no reason why its adoption should not be optional with all persons." The article, as we indicated above, should be read carefully by all interested in this question. *Audi alteram partem* is a sound motto. We think the sum total of data and opinions upon which the author bases his conclusion inadequate for the purpose, and not sufficiently exact. The historical are, in fact, better than the sanitary and statistical parts of the essay, which is included in the Sixth Annual Report of the State Board of Health of Massachusetts.

Last week Dr. A. J. Bernays, Professor of Chemistry at St. Thomas's Hospital, called attention in *The Times* to a modification of Mr. Seymour Haden's plan of burial, proposed by the writer in a lecture delivered in October of last year. Assuming that the English public will never give a general consent to cremation, Dr. Bernays believes that the best way of bringing about harmless decay would be by burning the soil, if clay, so as to render it permanently porous, and enclosing the body in a coffin made of perforated iron plate, with a lid of the same material. Such a coffin would resist pressure for several years, and the signs of oxidation on the part of the iron would communicate themselves in a visible manner to the drainage from the cemeteries. The bottom of the grave is to be covered with charcoal, and filled in with the burnt clay to the depth of six feet.

THE ARMY MEDICAL SERVICE.

THOSE who have repeatedly scanned the published reports of Mr. Hardy's utterances with the view of extracting something hopeful in regard to the future of this service, need scarcely be reminded that anything which may have been promised has been expressed in very general and vague terms, and always with a view of getting rid of some troublesome deputation, or of affording an answer to some questioning M.P., or to avoid, as on a recent occasion, a division on a motion. As we have said more than once, Mr. Hardy appears brimful of good intentions, but he takes very good care to conceal the shape and character which these are likely to assume. His intentions may be, after all, only apparent. He has certainly told us what we are not to expect, and that is about all. Moreover, even if Mr. Hardy had at this moment drawn up an excellent Warrant, which is very doubtful indeed, it will have to surmount a sea of difficulties and opposition before it sees the light. A correspondent reminds us that many years ago an excellent Warrant was in type, but a large number of medical candidates was forthcoming, and the type was thereupon, we suppose, at once broken up, for no Warrant appeared. Under the late administration we all know what happened. No one would think of calling the last Warrant an excellent one. The moral of all this is that

before young men enter the army they should know positively and definitely what is to be done, and not trust to a vague sort of hope and belief that something or other will be done. In the present state of uncertainty as regards all that concerns the Army Medical Service, that of the Navy unquestionably holds out the best prospects. There is, of course, considerable difference of opinion as to the merits of the late Naval Medical Warrant, but we consider that it is, on the whole, a good one, and our judgment in this respect has been strengthened and confirmed by all that we have heard. Mr. Hardy having stated that he has no objection to the probable number of vacancies in the Army Medical Department being stated at the time when the competitive examination is announced, we shall soon know whether the number of candidates does not fall short of the requirements of the service.

THE TROOPS AND THE WEATHER.

THE Autumn Manœuvres that have just terminated have been carried out under conditions of weather of a very exceptional kind. The rain has been so persistent and occasionally heavy as to have resembled the rainy season of a tropical climate more than an English July. The troops have had anything but a good time of it. After marching in rain, and returning to camp fatigued and soaked to the skin at the end of a day's work, they have found their tents flooded, the ground so damp as sometimes to compel them to stand up all night instead of lying down, and with no change of garments. Still their health has been very good, the amount of sickness being insignificant. The meeting of the National Rifle Association at Wimbledon from the 12th to 24th inclusive, will also long be remembered as the wettest on record; indeed, we heard of a placard having been displayed by some humorous individual advertising that a swimming match was to be held. The discomfort and the interference with enjoyment were doubtless great, but the wet exercised no injurious influence upon the health of the men. The average daily sick, out of an average strength of 2906, was only 5·44, or about 1·80 per thousand; the total number receiving treatment being only 24, and the majority of those were slight cases of cuts, sprains, burns, and other accidental injuries. The volunteer hospital was empty during the whole period. Surgeon-Major Owen calls attention in his report to the fact that in 1867, also a wet season, the sick-list was small. Diarrhœa, the most frequent camp disease, may, he thinks, be attributed generally to heat, exposure to the sun, variations of temperature, increased thirst, and irregularities of diet—causes which are in a great measure avoided in wet weather, spite of its disadvantages. In 1868 it was exceptionally hot, and, with an average of 2159 campers, the applicants for treatment were 439, of which number 309 were for diarrhœa alone. The sanitary condition of the camp this year has been very good.

DEATH FROM CHLOROFORM AT QUARRY BANK.

A WOMAN, aged twenty-one years, died at Quarry Bank, on July 7th, while under the influence of chloroform, administered for the operation of puncturing an abscess in the abdomen. The patient was under the care of Mr. Ker, of Cradley Heath, who had diagnosed a circumscribed abscess, and was about to operate when violent vomiting came on. The chloroform was withdrawn until the vomiting had ceased, and the patient meanwhile became partially conscious. Before the chloroform could be again administered she gave a gasp and died. The chloroform was given by Mr. E. Sainthill Pearse, who agreed with Mr. Ker in believing there was circumscribed abscess, and that the operation was necessary. Mr. George Ashmead, of Brierly Hill, who made the post-mortem examination, deposed at the inquest that the heart of the patient was healthy and the cavities empty, that the lungs were extensively diseased, that a large cavity containing pus existed in the right lung, that the left lung was consolidated, and that there were extensive pleuritic adhesions. The liver was softened, and a quantity of pus was found in the peritoneum as the result of peritonitis. Mr. Ashmead was of opinion that the pus in the peritoneum was not circumscribed during life, while Mr. Ker believed it was, and that the syncope, from which the patient died, was from rupture of the abscess into the peritoneum. The jury returned a verdict that the deceased died from suffocation, caused by impeded circulation of the blood; and the coroner, who looked upon the operation as a forlorn hope to relieve a dying woman, said that it was worse than useless to spread an alarm throughout the country as to the use of chloroform when it was considered that the deceased was in such a state that she might have died at any moment. Not the slightest blame, he added, could be attached to the surgeons who attended. While we agree with the remarks made by the coroner on this case, and without desiring to impute the least blame to the gentleman who operated, we cannot help pointing out that it was a case for local rather than for general anæsthesia. The puncture into the abscess might have been made by the local method without the infliction of any pain, and all danger of sudden death from anæsthesia prevented. It is indeed difficult to imagine a more favourable opportunity of employing the local and safe measure for a painless operation.

ST. BARTHOLOMEW'S HOSPITAL.

THE anniversary dinner of this hospital was given by the hospital stewards on Wednesday evening. The company was large and distinguished, including Professor Owen, Sir Charles Reed, the President of the College of Physicians, the President of the College of Surgeons, Mr. Brudenell Carter, Dr. Cameron, M.P., &c. &c. The chair was ably filled by the treasurer of the hospital, Sir Sydney Waterlow. When we say that nearly all these gentlemen and others spoke from their respective points of view, we need not add that the proceedings were of unusual interest, and that a very good account was given of the hospital. It is interesting to think of this institution, originating with a prior of the twelfth century, showing no sign of decay or of age, but still at the front, whether regarded as a school or a hospital. Under the able administration of Sir Sydney Waterlow, the practical religion and administrative capacity of the nineteenth century is represented as it was by Rahere in the twelfth. "There are diversities of gifts, but the same Spirit."

CALCUTTA MEDICAL COLLEGE.

THE annual distribution of premiums and diplomas to the students of the Medical College took place at the Senate House of the Calcutta University on the 15th ultimo, when Dr. Norman Chevers, the Principal of the College, delivered an able and interesting address. In the report for the preceding year allusion was made to the very great loss which the College and Hospital had sustained in the retirement of Dr. Fayrer, C.S.I., after having been connected with those institutions for fifteen years. Dr. Fayrer is succeeded by Mr. S. B. Partridge, F.R.C.S., in the Professorship of Surgery at the College, and he becomes at the same time the senior surgeon to the Hospital. The death of Surgeon-Major Dr. Chakarbatti, one of the physicians to the Hospital and Professor of Clinical Medicine and Materia Medica, who had taught in the College for twenty-four years, was a source of sincere regret to all. Dr. Chakarbatti was a native of India, and was one of four students sent by the Government to complete their education in London, under the care

of Dr. Goodeve, and being a man of much energy and ability he attained considerable eminence as a physician. The number of students educated at the Calcutta University and Hospital is very large, and it is not easy to over-estimate the amount of real practical good that is done in this way. To take a case in point. On the occasion of which we are speaking the Principal of the College presented to Assistant-Surgeon Ghose, a former student of the College and Hospital, the sanad, or patent, of Rai Bahadur, with which title he had been invested by the Government of India in recognition of a long series of services of an arduous and distinguished kind; *apropos* of which we may mention that Dr. Ghose is a very dexterous operator, and has performed lithotomy nearly 500 times, and that he has enriched the museum of the College with 200 of the stones removed by him.

THE QUEEN AND THE PROFESSION.

THE profession ought to be, as we have no doubt it is, highly gratified by the kindly feeling which Her Majesty invariably manifests towards those members of it upon whom has devolved the honourable and responsible duty of guarding Her Majesty's health. A few years ago, when Sir James Clark died, the notice of his death, which appeared in the *Court Circular*, was accompanied by most gracious expressions of regard on the part of the Queen; and now, again, Sir Charles Locock's memory has been honoured by the expression of Her Majesty's genuine regard for the deceased baronet. Such sympathy between the Sovereign and the physicians of her Court shows that the profession to which they belong must hold an honourable place in the estimation of one who is looked upon as the sole fountain of honour, and it further shows how highly Her Majesty appreciates those who amidst the anxieties of extensive practice have shown themselves loyal and zealous in her service. It is but too often the case that doctors fail in obtaining from their patients any expression of gratitude even for services which have involved much hard work and abnegation of self, but it will never be said that Her Majesty forgot to render to her servants that which alone makes labour sweet, and which is always highly prized by those who are fortunate enough to earn such noble expressions of goodwill and affectionate gratitude.

THE MEDICAL DISTRICTS OF ISLINGTON.

THIS question still gives most unnecessary trouble to the Islington guardians and to the aggrieved medical officers. We have repeatedly referred to the extreme inequality of the area and number of cases of the respective districts; men with very extensive districts and a large number of cases getting the same salary, or nearly the same, as men with limited districts and a much less number of cases. The chief sufferers are Dr. Gardner and Dr. Ducat; the former having 600 cases in a quarter, and the latter 260 or 270, and a district covering 834 acres. These gentlemen would probably be both easily contented with a little addition to their salary, or the transfer of a portion of their work to the care of a neighbouring medical officer. Instead of this, the guardians propose to ignore Dr. Ducat's complaints and leave him to grapple with his enormous district, which in winter or in times of epidemic will make a very heavy demand on his time and strength. This is an odd way of dealing with a reasonable complaint. Dr. Gardner's case is to be met by equally dividing his district and proportionally reducing his salary. He will still be left with a larger number of cases and a smaller salary than those officers in the more fortunate districts. It really looks as if the guardians meant to punish these medical officers for making perfectly just complaints. We are sorry that Dr. Bridges should have suggested such an unsatisfactory mode of redressing the grievances of hard-working and meritorious servants. We trust that both he and the guardians will abandon a false position, and take the simple course of transferring a portion of the work of the Highbury and St. Peter's districts to other more lightly worked officers, or, if this be inconvenient, make an addition to the salary of Dr. Ducat and Dr. Gardner. The *Islington Gazette* most strongly denounces the present proposals, and it may be well taken to represent the feeling of the intelligent portion of the ratepayers.

THE HAMPSTEAD FEVER HOSPITAL.

THE Select Committee of the House of Commons on this question met again on Friday last, the 23rd inst., when evidence was given by Captain Barry, Dr. Steel, Surgeon-Major Bostock, and Dr. Jervis on behalf of the Asylums Board; the object of their evidence being to rebut certain objections to the present site which had been raised by the Hampstead Residents' Committee, and to state some grounds of objection to the proposed new site.

This closed the evidence on both sides, and on Tuesday the Committee met again to consider their report, which was presented to the House on Tuesday evening by Mr. Sclater-Booth, the chairman of the Committee. Just before going to press we received the report of the Committee:—

"Having considered all the circumstances, the statements of opinion, more or less conflicting, and the ascertained facts of the case thus submitted to them, the Committee are of opinion:—1st. That the action of the Asylums Board has been strictly in accordance with their duties, powers, and responsibilities, as derived from the Metropolitan Poor Act, 1867, and from the sanction and control of the Local Government Board so far as it was incumbent on them to be guided by that department. 2nd. Without disputing the fact that some alarm was experienced and some possible risk encountered in the immediate neighbourhood of the asylum during the period of the small-pox epidemic, that such mischiefs have been much exaggerated; that they are not of necessity incidental to the existence of the hospital, but only due to the carelessness of persons entering or leaving the same, or to the imperfect control which follows overcrowding, or otherwise may at times have been occasioned. 3rd. That on the whole there is no reason why this particular district should claim the interference of Parliament for the removal from it of an inconvenience to which it has become subject by reason of the due execution of the provisions of a wise and beneficent law."

We defer our remarks on the report until next week.

METROPOLITAN POLICE-CELLS.

THE subject of the metropolitan police-cells was brought before the House of Commons last Friday by Sir W. Fraser. We have recently reported specially on the condition of these cells, and it will be remembered that our report was favourable. Sir W. Fraser stated that men charged with being drunk were placed in a cell to lie on an asphalte floor or on a bench without a ledge. Our Commissioners, however, found that in all the cells they visited a sloping wooden floor was provided for persons incapably drunk, and on which they seemed peacefully to recline in their drunken slumbers. Sir W. Fraser also commented on the hardship of a "technically innocent man" being submitted to the "torture" of the police-cell for thirty-six hours. Our Commissioners, from an inspection of the police records, found that such instances were extremely rare, and that, as the accommodation was amply sufficient, it was easy to secure such isolation. Moreover, in all bailable offences security was at once taken, and the prisoner released. Sir H. Selwyn Ibbetson, in reply, quoted the statements of our Commissioners, and added that proper provision was made for exceptional cases of overcrowding.

EPITHELIUM OF THE ALVEOLI OF THE LUNGS.

DR. E. AUFRECHT describes the changes undergone by the epithelium of the alveoli of the lungs in broncho-pneumonia. He finds that near the focus of the disease the cells are much swollen, and have become opaque in consequence of fatty degeneration, and broken down, so that only fragments of them remain. In other places they have fallen away bodily, leaving a delicate network, which appears to be a modification of the cementing substance by which they are normally retained in position and connected together. This network can be readily separated from the alveoli, and can then be seen to be composed of extremely fine elastic fibres, which are but slightly acted on by acetic acid. The nodal points of the fibres exhibit nuclei. The appearances presented in disease have led him to examine the normal relations carefully, and he arrives at the conclusion that even in the perfectly healthy lung the alveoli are covered with a network of elastic fibres, containing nuclei in their nodal points, and the meshes of which contain the epithelial cells of the alveoli.

SMALL-POX AT STOCKPORT.

SMALL-POX has been unduly prevalent for some weeks past at Stockport. Last Saturday, at the Borough Court-house, the sanitary authorities summoned Mary Doulin for wilfully and unlawfully exposing Margaret Carey whilst in her charge, and who was suffering from small-pox; also, as being a keeper of a common lodging-house, for neglecting to give notice to the authorities that she had a person suffering from infectious disease; and for letting lodgings without having had them previously disinfected after the reception of an infectious patient. The case was fully proved against the defendant, but the Mayor stated that, as this was the first case brought under the notice of the bench, they would deal leniently with it, and, instead of the penalty of £20, they would inflict a mitigated penalty of 10*s.* and costs for the first offence, and 5*s.* and costs for the second and third. If any further cases were brought before the bench they would be dealt with more severely. We commend the action of the Stockport sanitary authority in dealing so promptly with the infringement of the Act. At this time, when both scarlet fever and small-pox are so prevalent, it behoves the authorities of all towns to be on the alert, and enforce to the fullest extent the powers at their command to ensure the isolation of infectious cases.

THE POLLUTION OF RIVERS BILL.

WE prophesied many weeks ago that the Pollution of Rivers Bill would not be passed this session. It is now definitely numbered with the innocents to be massacred. We hope it will be satisfactory to some that the Premier expressed his regret that it was not possible to proceed with the Bill this year, although it is but faint consolation for those who suffer in purse and person in consequence of filth-impregnated streams. The statesman who pledged himself on the hustings to inaugurate a new policy of sanitation which would distinguish this Government from preceding ones cannot be said to have fulfilled his promises. He found in his struggle a powerful ally in the profession who hoped to see their rights vindicated and their importance acknowledged under the promised new era. What has been done? The time has been frittered away in quibbling over paltry Bills, while measures of deep national interest have been ruthlessly strangled. We hope that next session the Government will present a Bill based upon wider principles, which, whilst more stringent in character, will bear less heavily and unjustly on individual interests.

HEALTH OF GARIBALDI.

SULPHUR-BATHS are proving as efficacious in Garibaldi's case as in that of the Pope. The General, who is really a greater invalid, though a much younger man, than Pio Nono, takes them at Cività Vecchia itself, under conditions more favourable to their efficacy than if he remained "imprisoned" in a Roman Palazzo. A fortnight ago he could hardly move his head or bend his fingers. Now he can do both, not only without discomfort but with ease. He makes his morning meal (*colazione*) his chief one; drives out every day in an open carriage; and sometimes ventures on a short sea-voyage in a yacht. Old sailor as he is, he gains strength by contact with the briny element, as Antæus did from mother earth; and he has resumed his sanitary study of the Campagna with an energy peculiarly gratifying when we consider how much the lives of generations yet unborn may owe to that of Joseph Garibaldi.

THE PORT OF LONDON.

ON Friday, the 23rd inst., the Port Sanitary Committee of the Corporation of London made the annual visit to their extensive district, under the presidency of Mr. Hora, the chairman. The members were accompanied by Mr. Simon, Mr. Netten Radcliffe, Dr. Sedgwick Saunders, Dr. Harry Leach, port medical officer, Dr. Whitcombe, surgeon to the hospital ship *Rhin*, and many others. Mr. Simon, in acknowledging one of the toasts proposed, took occasion to comment upon the futility and absurdity of the old system of quarantine, the importance of using all means to carry out a practical and efficient substitute for it, and the energetic way in which the Corporation had undertaken and exercised their duties as sanitary authority of the Port of London. It will be remembered that Mr. Simon worked in the City as medical officer of health for upwards of seven years, previous to his appointment as medical officer to the Privy Council.

ST. THOMAS'S HOSPITAL.

WE have to record with regret that the family of one of the resident medical officers at St. Thomas's Hospital have been attacked with enteric fever, that two fatal cases have occurred, and two other children have been dangerously ill. It is a work of supererogation to point out that this must indicate local defects in connexion with the drainage system of the hospital. Having regard to the fact that the professional staff of St. Thomas's includes the medical officer of the Local Government Board and two of the most eminent authorities on the continued fevers, it is simply astounding that, as far as we can learn, no active steps have been taken in the matter. It is, in the interest of the public, proper to inquire whether any of the above authorities have been consulted, and if so, what was the result thereof.

THE Secretary of State for War will be asked in the House of Commons to obtain the opinion of the officers who superintended the recent summer manœuvres as to the power of bearing fatigue and exposure manifested by the troops engaged, especially of such of the army forces as were enlisted during the last three years respectively as compared with the soldiers of more mature age and earlier enlistment.

THE University of Rome recently instituted a special chair for Aural Diseases, and its first occupant, Professor Emilio de Rossi, has just issued his annual report. Out of 187 patients in the wards, 127 were cured, and by methods which are sometimes as ingenious as they are novel in the department of otology.

A SHORT time back we pointed out a serious and dangerous defect in the condition of the Shoreditch Workhouse. In consequence of the want of adequate mortuary accommodation, decomposing bodies were frequently brought into proximity with the wards of the infirmary, thereby endangering the health of the patients. Last week the matter was brought before the notice of the House of Commons, when Mr. Sclater-Booth, in reply to a question, stated that arrangements were now being made which would obviate any further difficulties in this respect. It should be known that one of the provisions of the Public Health Bill, now passing through Parliament, confers on the Local Government Board the power of compelling local authorities to provide mortuaries where necessary. There are crowded districts in the metropolis and the country where the need of mortuaries is most urgent. We trust the forthcoming Act will effectually remedy such grievances.

IT has been notified to us that two scholarships, of the annual value of £80 each, tenable for four years during residence, will be awarded in October next at Exeter College, Oxford, for proficiency in Natural Science. There is no limit of age for these scholarships. The examination will be in biology, chemistry, and physics, and candidates will be expected to show proficiency in two at least of these subjects. The scholars elected will be expected to read for honours in biology in the School of Natural Science. Candidates who are already matriculated members of the University must have passed Responsions, or the equivalent examination of the Oxford and Cambridge Schools Examination Board.

A GROWING feeling of the need of hospital accommodation more proportionate to the size of the town of Wakefield than that which has hitherto been supplied by the Clayton Hospital and Wakefield General Dispensary has culminated in the passing of a resolution, at the annual meeting last week of the friends of the institution, to secure a site which has just offered whereon to erect a new building. The idea seems to have awakened considerable enthusiasm amongst the more wealthy residents of the town, and £1500 was raised towards its realisation before the meeting broke up.

THE death of Dr. Peter Mere Latham is announced, at the advanced age of eighty-seven. The deceased was Physician Extraordinary to the Queen, and formerly one of the physicians to St. Bartholomew's Hospital. He was a son of Dr. John Latham, a former president of the Royal College of Physicians, and also physician to St. Bartholomew's Hospital. Dr. Latham graduated at Oxford, and took his M.D. degree in 1809. He was elected a Fellow of the Royal College of Physicians in 1818, and has filled most of the offices in that institution.

DR. INGLIS has formally resigned his office as one of the honorary physicians of the Worcester Infirmary in consequence of being censured by the executive committee for on one occasion not getting a colleague to see his outpatients when he himself was called to the country, but leaving them to be seen by the resident house-surgeon. If this action of the executive committee is not disavowed by the general body of governors, so much the worse for the future of Worcester Infirmary.

THE Vestry of Kensington at their last meeting, by a unanimous vote, raised the salary of their medical officer of health, Dr. Dudfield, from £300 to £400 per annum, with expressions of approval of that gentleman's services, creditable to themselves, and which must have been peculiarly gratifying to their officer.

THE following appears in the *Glasgow Herald* of July 26th. As this is the first occasion for many years on which Glasgow University has recognised an extra-mural lecturer, it seems worthy of insertion. "The Glasgow University Court have agreed to recognise, as qualifying for graduation in the University, the course of lectures on Systematic Surgery to be delivered by Dr. Hector C. Cameron in the Glasgow Royal Infirmary."

THE prevalence of scarlet fever in Warrington has induced a member of the Town Council to urge upon his colleagues the necessity of erecting in the borough a hospital for the reception and treatment of infectious diseases. Alderman Burgess, in advocating the adoption of this course, stated that one medical man in the town had under his professional care no fewer than twenty-five patients suffering from scarlet fever.

WE understand that the Town Council of Liverpool have decided to erect a cholera hospital in the Mersey, and have applied to the Local Government Board for authority to borrow £15,000 for the purpose. Last week Colonel Cox held an inquiry in the town on behalf of the authorities at Gwydyr House, when evidence demonstrating the necessity of such an institution was given.

THE medical officer of health for Wolverhampton, Mr. J. H. Love, in his annual report of the condition of the town during the past quarter, states that puerperal fever was very prevalent in the period. The death-rate of children under five years of age was high, and the mortality from chest affections seems to have been above the average.

CHOLERA appears to be increasing at an alarming rate in Syria. The latest weekly return approximately gives the number of persons attacked in that period as 500, a large proportion of whom died.

THE bust of Dr. Hughes Bennett, by Mr. W. Brodie, will be presented to the Senatus of the University of Edinburgh by Dr. Andrew Clark, on behalf of the subscribers, on Monday, August 2nd, after the graduation ceremony.

Correspondence.

"Audi alteram partem."

PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—In your leader of the 24th inst. on the late discussion on Puerperal Fever you made a practical and, I think, most useful suggestion—"That this discussion should be supplemented by the record of carefully investigated local epidemics or series of cases, or even *isolated cases*, arising under circumstances that admit of precise analysis and estimation in their bearing on cause, nature, and treatment." You even infer the weak point of the debate was the want of practical experience of the speakers, and regret that more general practitioners did not take part in the discussion, and respond to Mr. Wells's invitation and desire which he expressed in his opening remarks, when he said his object was "even to elicit rather than to impart information; to call forth the stores of knowledge now latent in the Society; to ask for the result of observation." The following facts it was my intention to have communicated to the Society on the last night of the debate, and my name was given as one of the intended speakers. An urgent professional engagement frustrated my intention. In response to your suggestion I send you the following brief notes of two cases of puerperal fever occurring in my practice

in 1870 and 1871. The first case bears on Dr. Hicks's statement, who said:—"My observations have gone to show that in certain cases there is no rash, and that there are none of the prominent symptoms of scarlatina, in cases of puerperal fever where scarlatina has been unquestionably mixed up." The second case proves beyond all doubt the nurse was the origin of infection, and shows the connexion between erysipelas and puerperal fever, and again confirms what is now, I believe, a universally accepted fact—the danger and liability of conveying puerperal fever if exposed to, or suffering from, erysipelas. A friend of mine, a hospital surgeon, told me his father died from erysipelas shortly after having attended two fatal cases of puerperal fever which had caused him very considerable anxiety.

On Monday, June 27th, 1870, I was sent for to attend Mrs. D——, aged thirty-one, in her fourth labour. On my arrival I found the child born; the labour had been both quick and easy, but the placenta was slightly adherent. She progressed satisfactorily up to the fourth day, when she complained of pain under the heart and distressed breathing, and expectorated a little red-coloured sputa. The abdomen was not at all tender, and no fever. She had a small thready pulse, and suffered intensely from thirst. The symptoms gradually increased in severity, especially the distressed breathing, which amounted the last day or two to violent attacks of orthopnœa. She died on Sunday, July 3rd, the seventh day of her confinement. The leading symptoms were great difficulty of breathing, anxious countenance, intense thirst, small, feeble pulse, acute pain under the left nipple, violent palpitation of heart, slight distension *but no pain of abdomen*. She had a little cough and a little phlegm, which was once or twice slightly tinged brown. This case occurred in a school. Scarlatina had been in the house off and on for months. Her little boy was ill at the time she was confined, and died on the 18th of July, from scarlatina maligna, the twenty-fourth day of illness. On July 2nd (the day before Mrs. D—— died) I attended Mrs. G—— in her fifth labour, which was more tedious and painful than usual. On the second day she had scarlatina anginosa, and on the twenty-second acute rheumatism. The attack of scarlatina was rather severe, the rheumatic fever very so. The former in no way differed from the usual course; the rash was bright scarlet, and was followed by free desquamation. The throat was troublesome the first week. She had one or two alarming attacks of syncope while suffering from rheumatic fever, and auscultation discovered cardiac murmurs; but these were functional, as they disappeared as convalescence was established. Her recovery was delayed for two or three months. I have since attended her in three labours, which were natural, and she made a good and early recovery from each. I would add I certified in good faith that Mrs. D—— died from pleuro-pneumonia, pericaditis, four days, seven days after a natural labour. Subsequent painful experience has left not a doubt in my mind that the case was one of true malignant puerperal fever, and that scarlatina, being in the house, was the probable cause. I attended several other women during the same time, without a bad symptom, excepting Mrs. G——, who contracted scarlatina, probably, I fear, conveyed by myself from Mrs. D—— or her child, the latter at that very time ill with scarlatina of malignant type. Mrs. G——'s baby and all her children (three in number) caught the disease, but not until after the rash had appeared for some days on my lying-in patient; the baby and also one other child dying after a few days' illness. The eldest child recovered. For some time I believed, what I tried to convince the mother, that although the disease showed itself first in her, yet it was her children from whom she caught the disease; the scarlatina poison was first in their blood, and it was the peculiar condition pertaining to the puerperal state that caused the rash to appear first in herself. I ought also to mention that Mrs. D—— was seen by two other medical men, who diagnosed her case as one of low typhoid, and *not* puerperal fever, and neither did I think it was until some months afterwards.

On Monday, about 2 A.M., Feb. 13th, 1871, I was summoned to attend Mrs. S—— in her third labour. On my arrival I found the child born, and the nurse exultingly showed me the placenta in chamber, saying at the same time, "You need not have brought your newspaper, as all your work is done for you." I found the pulse good, uterus contracted. I bandaged her and returned home in about half an hour. I had not attended any case of puerperal fever that year, nor was I attending at that time any infectious case. Mrs. S—— progressed satisfactorily until the third day, when the disease was ushered in with a severe convulsion, and she died on the eleventh day, Feb. 23rd, 1871, from puerperal peritonitis. The prominent symptoms were, an attack of convulsions lasting about an hour, on the third day; great pain in the uterus, which was enlarged and very dull on percussion; retching and vomiting of at first green, and latterly coffee-ground-like matter; countenance pinched and anxious; lost all interest in baby; milk arrested; lochia natural and not offensive; pulse was quick, but until the last two days not thready, as in other case; the respirations were short and hurried, latterly very quick. She complained of less acute but more continued pain as death approached, and was conscious almost to the last. There was not much fever; temperature never exceeded 100°. The nurse who delivered this woman was taken ill after the first week, and had to go home and was attended by the parish doctor, Mr. Spurgin, who kindly wrote to me stating that he had attended Mrs. C——, the nurse who delivered my patient who died from puerperal fever, and that she (the nurse) died from erysipelas on Feb. 28th, five days after the death of the woman she had delivered, and whose death was caused by puerperal peritonitis. Mr. Spurgin, in his letter to me, states that he attended Mrs. C—— from Feb. 24th till her death on the 28th. I was also consulted a short time afterwards by a poor woman who was suffering from phlegmonous erysipelas of arm and hand, and who said she thought she had poisoned her hand through washing the linen and diapers of the poor woman I attended who died in her confinement.

It has fallen to my lot to have seen several cases of puerperal fever, and in almost all I have at some trouble investigated the probable cause of infection, and the result of my experience, observation, and thought is that puerperal fever is in nine cases out of ten of zymotic origin, and that each case may be regarded as one of blood-poisoning, and the only treatment that appears successful confirms this conclusion. To quote the words of Mr. Graily Hewitt, I believe, "It it impossible to escape the conclusion that puerperal fever consists in nothing more or less than an injection into the general circulating fluid of a poisonous material of animal origin, that it is a form of pyæmia, for the production of which the minutest portion of the morbific agent may prove sufficient." But I am also led to think that there are two forms of this so-called fever, which Dr. Barnes aptly terms "heterogenetic" and "autogenetic," and that one may be more contagious than the other. "The former arises from causes outside the patient's body; the poison *has been carried to her and has been put in her*. The latter autogenetic, in which all the conditions of the fever exist or arise in the patient's system, with which infection or contagion has nothing to do."

Apologising for the length of my communication,

I am, Sir, yours truly,

FREDK. H. ALDERSON.

Southerton House, Hammersmith,
July 26th, 1875.

THE HEALTH OF THE TROOPS AT THE AUTUMN MANŒUVRES.

(*From our Special Correspondent.*)

WITH the face of the heavens the type of prevailing disease must change. Accordingly, while during the manœuvres of 1874 so much care was needed to protect the men from undue exposure to, or exertion in, the heat of the day, and the wildest rumours were circulated of the ravages of sunstroke, on this occasion not a single man was incapacitated from the effects of the sun, but in its stead the various kinds of rheumatism took precedence. Catarrhs and affections of the chest, such unfailing visitants of the inhabitants of houses in wet weather, are comparative strangers in the equable temperature enjoyed by the dwellers in tents. The proportion of diarrhœa amounted to about one-sixth of the total cases sent from the field.

Another condition also which has always existed on the

manœuvres, and which, though productive of no very marked consequences in so short a time, still, on a campaign, would most seriously multiply the non-effectives, is want of sufficient means of personal cleanliness. No very great ingenuity would be required to devise a little india-rubber basin which, when not in use, would serve as a waterproof cover to some of the soldier's equipment, and which would well repay the few ounces' additional weight imposed, and the small expenditure incurred. Probably nothing would do more towards lessening the gaps in the ranks from foot-soreness than this.

The battles were somewhat prolific in accidents, but that may only testify to the brilliancy of the movements. On the whole, the physical condition of the men was improved by their rough field experiences.

BIRMINGHAM.

(From our own Correspondent.)

THE Town Council have rarely done so much important business at any one sitting as they did yesterday. They received from the Mayor, to whom great credit is due for the energy and ability with which he has prosecuted these reforms, the announcement that the Gas and Water Bills had passed both Houses of Parliament, and they appointed committees to conduct and manage these undertakings. They resolved on the adoption of the Artisans' Dwellings Act, 1875, and appointed a committee to receive official representations of the unhealthiness of any area or areas in the borough, and to submit to the Council a draft scheme for the improvement of such areas, and generally to carry out the provisions of the Act; and, lastly, they raised the salary of Dr. Hill from £650 to £1000 on consideration of his giving up the whole of his time to the duties of medical officer of health and borough analyst. No higher functions could be exercised by any corporation than the acquisition of the water supply, the improvement of the dwellings of the working-classes, and the recognition of the value of the services of a health officer.

The last report of the Birmingham Medical Benevolent Society shows that the directors had been enabled to distribute during the past year £417 to fourteen recipients, and to invest £200, and that the total property of the Society amounts to £8387. Dr. Agar, of Henley, has been elected president for the ensuing year.

The post of surgeon to the Warneford Hospital, Leamington, is vacant by the resignation of Mr. Jones. The appointment of Mr. Joseph Morris, a former house-surgeon, who at the last election in 1871 was very nearly at the top of the poll, is almost a certainty.

The report of Dr. Robinson, the vaccination officer of the parish of Birmingham, shows that 95 per cent. of the children born in the parish are accounted for by the vaccination officer, recommends that the magistrates should exercise their full powers against those who try to evade the Vaccination Act, and says that the arrangements which the guardians have made for ensuring vaccination are all that can be desired.

The committee of the Women's Hospital have for the second time appointed a lady house-surgeon. Miss Edith Pechey has been educated at the University of Edinburgh, and brings with her exceptionally good credentials.

Birmingham, July 28th, 1875.

MANCHESTER.

(From our own Correspondent.)

AT the Royal Infirmary, the subject which perhaps principally occupies the attention of both the medical and lay bodies just now is the contemplated removal of that institution to a more suburban position. It is rumoured that twenty pounds per yard has already been offered for land in the immediate vicinity of the present hospital, for the purpose of erecting thereon a building which shall serve for an accident department. The neighbourhood of Oxford-street, near the new Owens College, is talked of as the probable situation of the new hospital. Amongst other interesting operations performed at the infirmary lately was one for strangulated umbilical hernia, performed by Mr. Bowring. The bowel had been strangulated for several days before operation, and as a consequence required most careful dissection. Stercoraceous vomiting occurred several times at intervals of a week. This finally ceased, and the woman made a perfect recovery. Mr. Whitehead has also had a case of strangulated hernia, where the operation was complicated with troublesome and dangerous hæmorrhage from a vessel within the fold of the peritoneum, covering the bowel at its junction with the mesentery. The vessel was ultimately secured by a catgut ligature, and the patient quickly made a good recovery. Mr. Bradley continues to obtain excellent results from his plan of injecting strumous glands with the tincture of iodine, which I hope he will soon publish in detail in the pages of THE LANCET.

A successful case of ovariotomy has recently occurred at St. Mary's Hospital. The patient was about twenty-one years of age. The abdomen was intensely and universally fluctuant, with general dulness and resonant flanks. The operation was performed by Dr. Lloyd Roberts. The cyst was exposed, tapped, and drawn through the wound. There was an adhesion of a piece of omentum about 3 in. or 4 in. broad to the cyst wall; this was secured by a silk ligature, and dropped with the divided pedicle into the abdominal cavity. The woman was convalescent on the ninth day, and was discharged from the hospital on the 17th inst.

Abdominal section has also been recently performed at this hospital by Mr. Cullingworth for extra-uterine gestation. The cyst was carefully exposed, opened, and a four months' fœtus extracted. The divided edges of the cyst were included in the ligatures which secured the abdominal wound. The patient appeared to go on favourably for a few days, but, unfortunately, symptoms of broncho-pneumonia came on, and she died about the eighth day after operation.

Manchester, July 26th, 1875.

Obituary.

SIR CHARLES LOCOCK, BART.

BY the death of Sir Charles Locock our profession loses one who was for long one of the most distinguished of its metropolitan members. He occupied, thirty years ago, the highest place as a practitioner of a branch of medicine which had not then perhaps received all the honour that was its meed; and that it now obtains due estimation is in part owing to his direct and indirect influence. He was the son of Mr. Henry Locock, of Northampton. A year older than the century, he graduated at Edinburgh in 1821, and soon afterwards commenced practice in London as an obstetrician. His success was rapid. Midwifery is a department of practice in which success often comes earlier than in most other branches. The demand which it makes on the physical powers throws its active work in the hands of comparatively young men. Still, the rapidity with which Sir Charles Locock made his way in fashionable practice was remarkable. At an age when most London physicians have hardly made good their first step, he had attained the highest position open to him, in being selected, by the advice of Sir James Clark, at the age of forty, as the Queen's physician-accoucheur—a post which he held up to the time of his death, and discharged its active duties as often as the occasion for his services arose. He was created a baronet on his retirement from practice nearly twenty years ago, a retirement which has also extended to all parts of public professional life. He was elected Fellow of the Royal Society in 1864, and in 1865 was an unsuccessful candidate for the representation in Parliament of the Isle of Wight.

During his career in town his practice was a very large one, perhaps the largest ever made by an obstetric physician. He owed it in part to his personal qualities, but chiefly to his remarkable practical knowledge and skill, which made his contemporary reputation as high with the profession as with the public. He wrote but little; his

only published work was his inaugural thesis, "De Palpitatione Cordis," on obtaining his degree in 1821. He contributed articles on menstrual disorders, diseases of lactation, and infantile and puerperal convulsions, to the "Cyclopædia of Practical Medicine."

The late Sir Charles Locock possessed many attractive social qualities. He was fond of society, and made warm friends among all with whom he was brought into contact, foremost among whom must be mentioned Her Majesty, whose high regard for his personal character and professional ability is well known. To most of the younger generation of the profession he has been known only by name, but to a large number of its older members pleasant recollections of former professional intercourse will cause the news of his death to come with regret.

Sir Charles Locock has left several children, some of whom occupy honourable positions at the bar, in the church, and in diplomacy. His wife died in the year 1867.

ALEXANDER M. OFFICER, M.D.

DR. OFFICER was born at Stonehaven, Kincardineshire, on April 21st, 1820, and, prior to entering College at Aberdeen, was a private pupil of the late Dr. Pratt, of the Episcopal Church, Cruden, author of "Buchan" and other works. He was articled to Dr. David Kerr, Aberdeen, and took his degree of M.D. in 1843. He afterwards became a partner with, and latterly succeeded to, the late Dr. James, of Brechin, where he remained nine years. He then removed to Montrose, where, in addition to a select general practice, he held the offices of assistant-surgeon to the Forfar and Kincardine Militia Artillery, Admiralty surgeon and agent, medical attendant to Dorward's House of Refuge, and medical officer to the Royal Infirmary. In all these capacities he enjoyed the confidence and respect of those with whom he came in contact. He was one of the most unselfish of men, and counted neither trouble nor cost in going out of his way to visit the sick or to do a kind act, whether pecuniary or otherwise.

It was in the course of his professional avocations at Montrose that he came by two accidents which brought on his last sad illness. The first was being thrown from his horse near a railway, at which the animal took fright, and the other was a puncture in one of his fingers while operating upon a patient in the Montrose Infirmary. The latter was very serious, though not immediately; but the severe treatment to which he subjected himself weakened his physical and mental powers to such a degree that he retired to his native place, where he died, after a lapse of two years, of softening of the brain and general paralysis on the 24th of April.

BECKIT TRUMAN, M.R.C.S. ENG.

MR. TRUMAN was born in June, 1802, at Bulwellwood Hall, Notts, the residence of his forefathers for 250 years. He studied at Guy's and St. Thomas's whilst they were united, and was a favourite pupil of Sir Astley Cooper, who spoke in high terms of his industry and knowledge. Having obtained the L.S.A. Lond. in 1825, and the M.R.C.S. Eng. in 1826, he settled in Nottingham and acquired an extensive practice, until in 1860 the demands on his time and strength were incessant. It was at this juncture, when the powers of life were becoming feebler, and no rest was possible, that his finger was inoculated with syphilitic virus from an obstetric case. The consequences were very sad, and were never recovered from, leading ultimately to his death fifteen years after.

Mr. Truman was a man universally respected, and his deep and unfeigned belief and trust in the truths of revealed religion were the causes of unfailing patience and goodness. A proverb says, "Ubi tres medici, duo athei"; but Mr. Truman could, whilst hearing and seeing the facts that are alleged by materialists to prove their theories, fearlessly and simply receive as true the lessons taught him from his mother's bible: he received them as a little child, never doubting.

Mr. Truman married early in life Susanna Mary, daughter of Mr. Joseph Smith, of Trent Bridges, Nottingham, who predeceased him by six months. Eleven sons and daughters, all grown up, remain to mourn his loss.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 22nd, 23rd, 26th, 27th, and 28th inst.:—

Baker, Alfred De Winter, Dawlish.
Barker, Walter Herbert, Brighton.
Bartlett, Henry, L.S.A., Great Dover-street.
Bowen, Alfred L., Ludlow.
Brenchley, Algernon D., L.S.A., Denmark-hill.
Briggs, Harry B., L.S.A., Horncastle.
Brooks, Walter John, Westminster-bridge-road.
Brown, Thomas Lloyd, Camberwell.
Bruce, Peter, L.S.A., Valparaiso.
Burton, Edward Campbell, Leo.
Burton, James K., Doughty-street.
Burtonshaw, Thomas, L.S.A., Hackney-road.
Carter, Frederick H., Pewsey.
Cock, William, Redruth.
Colborn, Henry, Wimbledon.
Collins, Henry A., L.S.A., Bayswater.
Collyns, Robert T. P., Gower-street.
Continho, Joaquim V., Goa, Bombay.
Cooke, William Conway, Brompton, Kent.
Coom, Richard, Bodmin.
Couldrey, James, L.S.A., Abingdon.
Cory, Frederick W., L.S.A., Buckhurst-hill.
Crocker, Henry Lawrence, Plymouth.
Curwen, Cecil, Worlington.
Cundell, George R., L.S.A., Lock Hospital.
Davies, Thomas, Barmouth.
Dickinson, William Gilbert, Hampstead.
Druitt, Lionel, Strathmore-gardens.
Farfan, Joseph V., Claverton-street, Pimlico.
Fisk, George H. B., Camden-square.
Godfrey, Robert F., M.D., Montreal.
Grasett, Frederick Le Maitre, M.B. Edin., Toronto.
Greenish, Robert William, New-street.
Ground, Edward, Whittlesea.
Hancock, Charles J., Bath.
Hancock, John Gatchell, Halse, near Taunton.
Harvey, Frederick G., Spalding.
Harrison, Edwin, Wrexham, Denbigh.
Hattie, Alexander G., M.D., Antigua, West Indies.
Hay, William A. E., L.S.A., Bridport.
Henley, Edward W., Derby.
Hind, Henry Joseph, L.S.A., Twickenham.
Hopkins, John, Northwich.
Hovell, Thomas M., Clapton.
Humphry, Reginald, Kensington.
Jameson, George H., M.B. Edin., Heywood, near Bury.
Johnston, Chadd M., Lancaster.
Jones, Benjamin, Chorley.
Karop, George C., L.S.A., Camden-town.
Lacy, Alexander G., L.S.A., Guernsey.
Lancaster, Henry Francis, Amersham-park-villas.
Langley, John G., Mildmay-grove.
Leeson, John Rudd, Teddington.
Le Quesne, Edwin J., Jersey.
Lucas, Arthur, L.S.A., Barwell, Cambridgeshire.
Makins, George H., L.S.A., Walton-on-Thames.
Mason, John W. B., Osnaburgh-terrace.
Morgan, David Craven, Llanddewi Brefi, South Wales.
Mugliston, Thomas Crichton, Plymouth.
Needham, Joseph, Victoria-park.
Newland, Charles Francis, Bradleigh, Down.
Noot, Henry Curtis, Dudley.
Phillips, James Alfred, Guildford.
Pettigrew, Augustus J. W., Hounslow.
Rees, Charles, L.S.A., Cape Town.
Richardson, Joseph B., L.S.A., Castle Bytham.
Roughton, Walter, Hammersmith.
Routh, Alfred Curtis, Meyrick-square.
Sangster, Alfred, M.B. Cantab., Streatham-hill.
Scott, Alexander Thomas, L.S.A., Cantlows-road.
Shadwell, St. Clair B., Walthamstow.
Sibbering, George, Merthyr Tydfil.
Stevenson, Robert A., M.D. M'Gill Coll., London, Ontario.
Sworder, Horace, Luton, Bedfordshire.
Symonds, Edmond, Thaxted, Essex.
Tamplin, Charles H., Old Burlington-street.
Taylor, Henry Cumberland, L.S.A., Trinity-square.
Todd, John, Tarnell-park.
Traill, Mark Windeyer, Kinross.
Turnour, Charles C., Millman-street.
Vernon, Mark H. H., Battle, Sussex.
Wakefield, Thomas, Nottingham-place.
Ward, Austin George, Carlton-hill.
Willis, Charles Fancourt, Penton Hook.
Wilding, Leonard James, Worcester.
Williams, Neville, Ruthin, Denbigh.
Woollett, Charles Jerome, Monmouth.

Of the 175 candidates examined during the last and present weeks, 113 satisfied the Court of Examiners and obtained their diplomas; 15 candidates passed the examination in Surgery, and, when qualified in Medicine, will be admitted Members, and 47 were referred to their professional studies for six months.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 22nd:—

Branson, John, Rotherham, Yorkshire.
Clarke, Arthur, Brill, Bucks.
Davies, John, Queen-street, Worship-street.
Eames, James Crompton, Kearsley, near Manchester.
Laverick, John Valentine, Hinderwell, Yorkshire.
Morgan, William, Ynysmudw, Swansea Valley.
Richardson, Joseph Berridge, Castle Bytham, near Stamford.

The following gentlemen passed the Primary Professional Examination on the same day:—

Robert Huntley Campbell, St. Thomas's Hospital; Thos. Baxter Carlyon, St. Bartholomew's Hospital; Ernest James Pritchard, Guy's Hospital; Charles James Rayley Owen, St. Mary's Hospital.

DR. WELSH, of Kinghorn, N.B., was recently presented by his friends and patients with a purse of money and a very handsome marble timepiece.

AT the Bath Town Council meeting a short time back, it was resolved to purchase, for £8100, a site on Claverton Down for an asylum for pauper lunatics.

THE Quarterly Court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held in the rooms of the Royal Medical and Chirurgical Society, 53, Berners-street, on the evening of July 14th, Mr. Charles Hawkins, vice-president, in the chair. The sum of £1116 10s. was voted to be distributed among fifty-seven widows now receiving grants, a sum of £75 10s. to be divided between seventeen children, and a further sum of £19 10s. was granted to three children from the Copeland Fund. The expenses of the quarter amounted to £66 10s.

BEQUESTS, &c., TO MEDICAL CHARITIES.—Mr. Selwood Riddle has this week presented to the Bristol Royal Infirmary the munificent donation of £3000. Mr. Joseph F. Duckett, of Kingstown, bequeathed £500 each to the Adelaide Hospital, Mercer's Hospital, Steeven's Hospital, Meath Hospital and County Dublin Infirmary, and Sir Patrick Dun's Hospital, all at Dublin. The Worcester Infirmary has become entitled to £300, 4 per cent. Debenture Stock London and North Western Railway Company, under the will of Miss Harriet Watkins, of Ombersley.

Medical Appointments.

ALLCHIN, W. H., M.B., M.R.C.P., has been appointed an Assistant-Physician to the Victoria Hospital for Children.

BALY, J. S., M.R.C.S.E., has been reappointed Medical Officer of Health for the Leamington Urban Sanitary District, at the increased salary of £80 per annum.

BERDIN, J. N., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Sutton District of the Hollingbourn Union, Kent, vice Sankey, resigned.

BROWNE, T. H., L.K.Q.C.P.I., L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Frankford, King's County, vice Ridley, resigned.

CLARK, W. W., M.D., M.R.C.S.E., has been appointed Medical Officer for the Wellingborough District and the Workhouse of the Wellingborough Union, vice T. Clark, F.R.C.S.E., resigned.

COSGRAVE, A., M.R.C.S.E., has been appointed Junior House-Surgeon to the Royal Infirmary and Dispensary, Manchester, vice Byrne, whose appointment has expired.

DRANE, J., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Warboys District of the St. Ives Union, Hunts, vice Serjeant, resigned.

DOBIE, W. M., M.D., M.R.C.S.E., has been appointed a Physician to the Chester General Infirmary, vice Waters, resigned.

GRIFFITHS, D., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Llandilo-Talyboat District of the Swansea Union, vice Jones, resigned.

HARVEY, R. J., M.D., has been appointed Assistant-Physician to the Richmond, Whitworth, and Hardwicke (House of Industry) Government Hospitals, Dublin, vice Yeo, appointed Professor of Physiology at King's College, London.

HILL, T., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Chipping-Warden District of the Banbury Union, Oxfordshire, vice Fowke.

HOPE, J., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the No. 3, or Chobham District of the Chertsey Union, Surrey, vice Ward, resigned.

HUTCHINSON, V., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the No. 3 Sub-district of the Auckland Rural Sanitary District.

ILES, D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the first Division of No. 3 District of the Northleach Union, and Medical Officer of Health for the first Division of No. 3 Sub-district of the Northleach Rural Sanitary District.

IRVINE, J. P., M.D., M.R.C.P.L., has been appointed Assistant-Physician to the Victoria Hospital for Sick Children, Queen's-road, Chelsea.

KENYON, G. S., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer for the No. 4, or Tarleton District of the Ormskirk Union, vice Hilton, whose appointment has expired.

KIDD, G. H., M.D., F.R.C.S.I., has been appointed Consulting Obstetric Surgeon to the Richmond, Whitworth, and Hardwicke (House of Industry) Government Hospitals, Dublin.

KILBURN, W. B., M.R.C.S.E., L.M., has been reappointed Medical Officer of Health for the No. 2 Sub-district of the Auckland Rural Sanitary District.

M'KANE, G. O., L.R.C.P.Ed., L.M., L.F.P. & S. Glas., has been appointed Medical Officer of Health for the No. 1 Sub-district of the Auckland Rural Sanitary District, vice Manson, whose appointment has expired.

MANSER, R., M.R.C.S.E., has been appointed House-Physician to the Hospital for Women, Soho-square, vice Skelly, appointed Resident Surgeon to the Western General Dispensary.

PALMER, F. S., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Mortlake District of the Richmond Union, Surrey, vice Alex. Crichton, L.R.C.P.Ed., L.R.C.S.Ed., deceased.

PHILLIPS, S. R., M.D., C.M., has been appointed Non-resident Medical Officer to the Branch Dispensary of the Cheltenham General Hospital and Dispensary.

ROBERTSON, J., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator, and Medical Officer of Health, for the Parish of Fordoun, Kincardineshire, vice Henderson, deceased.

SELLERS, W., M.R.C.S.E., has been appointed Medical Officer for the Radcliffe District of the Bury Union, vice Bott, resigned.

SEWARD, W. J., M.R.C.S.E., has been appointed Assistant House-Surgeon to the Bristol General Hospital, vice Thornley, appointed Assistant Medical Officer to the Leicestershire and Rutlandshire Lunatic Asylum.

SMITH, C. E., M.R.C.S.E., L.R.C.P.L., has been appointed Senior House-Surgeon to the Royal Infirmary, Manchester, vice Birch, resigned.

WATERS, E., M.D., F.R.C.P.Ed., F.K.Q.C.P.I., has been appointed Consulting Physician to the Chester General Infirmary, upon resigning as Physician.

WOODS, G. A., L.R.C.P.Ed., L.M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2, or North Meols District of the Ormskirk Union, vice G. Woods, F.R.C.S.E., resigned.

WOODS, O. T., M.D., L.R.C.S.I., Senior Assistant at the Warwick County Asylum, has been appointed Medical Superintendent of the Killarney District Asylum, vice Murphy, deceased.

WREFORD, S., M.R.C.S.E., has been appointed House-Surgeon to the York County Hospital, vice Kebbell, appointed Medical Officer to No. 4 District, York Union.

WRIGHT, J. B., M.D., M.R.C.S.E., has been appointed Medical Officer for the Finedon District of the Wellingborough Union, vice Clark, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CHILD.—On the 26th inst., at New Malden, Surrey, the wife of Edwin Child M.R.C.S.E., of a son.

DUDGEON.—On the 23rd inst., at Montagu-square, the wife of R. E. Dudgeon, M.D., of a daughter.

FRASER.—On the 20th inst., at Knutsford, Cheshire, the wife of Thos. R. Fraser, M.D., of a son.

JEFFERY.—On the 20th inst., at Trinity House, Eastbourne, the wife of G. A. Jeffery, M.D., of a son.

MORRIS.—On the 15th inst. (St. Swithin's), at Euston-place, Leamington, the wife of J. Morris, Surgeon, of a son.

THEOBALDS.—On the 13th ult., at Jubbulpore, the wife of Surgeon-Major J. R. Theobalds, 16th Madras Native Infantry, of a daughter.

MARRIAGES.

ATKINSON—TIMINS.—On the 28th inst., at the Parish Church, Kingston-on-Thames, Frederick P. Atkinson, M.D., of Surbiton-road (eldest son of J. C. Atkinson, M.D., of Kew-green, Surrey), to Eliza Henrietta, only daughter of A. Kier, M.D., of Tunbridge Wells, late H.E.I.C.S., and widow of the late Douglas C. Timins, M.A., of Hilfield, Aldenham, Herts.

FIELD—BROWNE.—On the 11th ult., at St. Paul's Church, Kingsey, P. of Quebec, Canada, Albert Field, M.B., C.M., of Bridge-town, Barbadoes, W.I., to Dora Caroline, eldest daughter of G. S. H. Browne, Esq., late of the Bengal Army.

HOLMAN—PARTRIDGE.—On the 22nd inst., at St. Philip's, Kensington, Robt. Colgate Holman, M.R.C.S.E., L.S.A.L., of Keighley, Yorkshire (youngest son of Henry Holman, Esq., of East Hothly, Sussex), to Edith Sybilla, daughter of the late Samuel John Partridge, Barrister-at-law, of Kensington, and Stroud, Gloucestershire.

NORBURY—FITZGERALD.—On the 21st inst., at the Parish Church, Prestbury, Cheshire, Thos. Wm. Norbury, of Crediton, North Devon (second son of the late Thos. Norbury, Esq., of Upton Hall), to Eliza Theresa, daughter of Captain T. C. Fitzgerald, of Upton Grange, Macclesfield, Cheshire.

DEATHS.

BETTS.—On the 20th inst., at Bonchurch, Isle of Wight, Geo. Harvey Betts, M.D., aged 66.

BURT.—On the 18th inst., at Edinburgh, Benj. Burt, M.D., aged 78.

CLARKE.—On the 25th inst., at Cambridge, Wm. J. Clarke, M.R.C.S.E., of Huddersfield, aged 61.

DAVIDSON.—On the 26th inst., at Heathcote-street, Mecklenburgh-square, C. J. Davidson, late Surgeon 47th Bengal Native Infantry, aged 64.

LOVELL.—On the 19th inst., at Sandymount, John Lovell, M.R.C.S.E., Inspector-General of Hospitals, formerly of the Madras Medical Service, aged 71.

MOFFATT.—On the 31st of May, at Naini Tal, India, Elizabeth Abbott, the beloved wife of Surgeon-Major J. E. Moffatt, 1-14th Regiment.

ROBERTSON.—On the 20th ult., at sea, on the passage to Jamaica, Schoedde Robertson, M.D., Staff Surgeon Army.

THOMAS.—On the 19th inst., Richard Thomas, L.R.C.P.Ed., of Mold.

TODD.—On the 6th inst., at Honley, Yorkshire, J. Todd, L.F.P. & S. Glas., aged 29.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.]

Notes, Short Comments, and Answers to Correspondents.

ESERINE IN CHOREA.

M. BOUCHUT has been experimenting with this alkaloid on children, and states (in the *Bull de Thérap.*, April 15th, 1875), among other things, that it may be ingested in the stomach or used hypodermically. The sulphate may be injected in doses of the tenth or the eighth of a grain; the dose should be larger when taken into the stomach. The effect of injections is very energetic, and in both cases the alkaloid should be administered fasting. The action lasts from one to three hours, and then entirely disappears, so that from three- to four-tenths of a grain may be used in three doses in the course of the day. This action with children is observed in a few minutes. The little patients may turn rather pale; but with the doses mentioned nothing serious has occurred. By injecting the tenth of a grain, the diaphragm is found to be partially paralysed. When eserine is used in chorea, it arrests the convulsive movements whilst its action lasts, and, by its continuous use, gradually moderates them. A cure may be obtained in about ten days. For this purpose we should inject a twelfth of a grain under the skin, or give a sixth by the mouth. It is, however, important to repeat the doses as soon as the usual eserie effects have disappeared, and it should be observed that the cessation of the choreic movements persists only whilst the alkaloid is being eliminated. M. Delamarre has tried hypodermic injections of eserine in two cases of traumatic tetanus. The patients died; but great improvement was obtained after each injection, so that new trials may be expected to lead to more favourable results.

Enquirer should address a note to Mr. Frank Buckland, of *Land and Water*.

THE EXAMINATION FOR THE ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—It has been generally believed for some months that a new Warrant most favourable to the army medical service is about to appear, and no doubt the expectation of it will induce many young medical men to present themselves at the approaching examination in August. To these I would tender *Punch's* well-known advice, "Don't." Be it remembered, the same tactics were tried in 1864, when it was generally believed that a new and favourable Warrant was actually in print; but as soon as the requisite number of candidates was obtained the document was thrown into the waste-paper basket. Mr. Hardy's reply to Dr. Lush's motion is certainly far from satisfactory. I would refer intending candidates to last week's *Broad Arrow*; and if, after perusing the excellent article therein, they still venture to come up for the examination, they have only hereafter to blame themselves.

By the way, the last insult offered to the medical profession is the insertion of an authority into the commissions of captains and lieutenants of orderlies to *command* medical officers who may be junior to themselves, thus raising up an *imperium in imperio*, which must prove utterly destructive to all good feeling between medical officers and their *quasi* medico-purveyor-combatant anomalies, yclept captains of orderlies; and, to make matters worse, the heads of the medical department, under whose orders these hospital stewards (as they ought to be called) are really placed, have no power of command over their own subordinates.

At the present moment the position of affairs is this: A surgeon-general in charge of a hospital—say the Herbert at Woolwich—has no power to give a private orderly a pass, but can direct the captain of orderlies to do so, who has perfect power to refuse it or not as he pleases, subject, of course, to his conduct being investigated afterwards.

With the abundant warning before them, if young medical men persist in taking service before matters are put to rights, they have hereafter their own folly only to blame, and they cannot say the medical officers of the army have not given them ample warning.

Yours obediently,

July 26th, 1875. AN ARMY SURGEON.

To the Editor of THE LANCET.

SIR,—Mr. Gathorne Hardy's reply to Dr. Lush's motion in the House of Commons on Friday last being vague and unsatisfactory to a degree, holding out no hope that one single grievance under which army surgeons are now suffering will be ameliorated—viz., stagnation of promotion, loss of forage, dismissal from their regiments without compensation, compulsory payment of entrance fees and subscriptions to mess and band funds of regiments to which they are only *attached*, difficulty of getting leave, refusal of exchanges, with many others which have been fully discussed in your columns,—I therefore write to entreat my young medical brethren who are thinking of entering the army to pause ere they do so, and to assure them that their position and prospects in the Royal navy or Indian medical services are infinitely superior to the Royal army, in which for years we have been suffering from injustice and broken faith. I write these words with deep regret. Twelve years ago I was full of *esprit de corps*, proud of my commission, proud of being an army surgeon. Now all that is changed, and, in common with a large majority of my brother officers, I look forward eagerly to the day in which I may resign a commission the acceptance of which was a mistake.

Yours obediently,

July, 1875. AN ARMY SURGEON OF FOURTEEN YEARS' SERVICE.

POOR-LAW RELIEF.

Fair Play.—A parish medical officer argues the propriety of relieving officers granting relief only on the certificate of the parish surgeon. This, we presume, is the legal course, and, on the whole, is the reasonable one. In his union he complains that relief is granted on the certificate of another irresponsible practitioner as readily as on his own.

WE have received a communication from *Mr. Clarke*, of Lincoln, in reference to his blood mixture, which we hope to insert next week.

SUSCEPTIBILITY TO PAIN IN THE LOWER ANIMALS.

MR. GEORGE PORRITT, curator of the Huddersfield Naturalists' Society Museum, in a lecture lately delivered before the Society, narrated a circumstance recorded by Coleman, which is calculated to soothe one's sensibilities in view of the enormous aggregate amount of inevitable pain suffered by the lower animals in their often brief life history. "I have seen," says Coleman, "a wasp, that has been snipped in two, afterwards regale himself with avidity upon some red syrup, which, as he imbibed, gathered into a large ruby head just behind the wings, where the stomach should have been; but really the creature's pleasures seemed only to be augmented by the change of his anatomy, for he could take ten times his ordinary fill of sweets, without, of course, getting any the fuller."

Angina Pectoris.—The subject will be found treated in most works on Medicine: Watson, Aitken, or Roberts.

Nemo, (Glasgow.)—Has our correspondent tried belladonna for checking night-sweats?

ERYSIPELAS DURING PARTURITION.

To the Editor of THE LANCET.

SIR,—I was called in to see Mrs. G——, aged twenty-two, pluripara, a strong, healthy young woman, who hourly expected to be confined. I found her suffering from a severe attack of erysipelas, affecting chiefly the face, throat, and fauces, accompanied with great constitutional disturbance. Ordered castor oil, six drachms, immediately, to be followed after the bowels were relieved by tincture of perchloride of iron, twenty minims; solution of acetate of ammonia, two drachms; water to one ounce; the face to be dredged with flour; steam inhalations for the throat. Diet: milk, eggs, and beef-tea. No stimulants.

Seen next morning. The oil had acted freely; the tongue was cleaner; she had frequent rigors from the commencement of her illness. I was sent for at 4 P.M. on the same day, as she was in labour. On making a vaginal examination, I found the os dilated to the size of half-a-crown, the vertex presenting; the soft parts were very hot and swollen; the secretions scalding, acrid, pungent, and offensive. She was delivered at C.45 P.M. of a small, weakly child, asphyxiated, but surviving on the employment of resuscitating measures. It died on the ninth day of icterus neonatorum. Having removed the placenta by Crede's method, and applied a compress and binder, I gave her liquid extract of ergot, thirty minims, to ensure if possible permanent contraction of the uterus. At 9 P.M. she had not passed urine; the after-pains were not severe; had passed a few clots, but the lochia were rather scanty, bad-coloured, and offensive; pulse 120; skin very hot and dry. Left her three pills, containing one grain of opium each, one to be taken every four hours. To continue steel mixture.

The next morning I found on inquiry that she had passed urine; she had several rigors during the night; the uterus was larger than normal, and tender on pressure; the lochia scanty and offensive; pulse 126; skin hot and pungent to the touch; erysipelas of face lessened. Ordered quinine, five grains; dilute sulphuric acid, five minims; tincture of opium, ten minims; water to one ounce: to be taken every four hours; and an antiseptic uterine injection of carbolic acid to be used warm night and morning.

The symptoms gradually improved until, on the fifth day from her delivery, I was pleased to find the erysipelas rapidly defervescing, the lochia natural, no subinvolution of the uterus, nor abdominal tenderness. She had no rigor on the previous day, and the bowels had been relieved without any aperient medicine having been exhibited. Lactation was established. The quinine and injection were discontinued, and she was ordered tincture of perchloride of iron, fifteen minims, chlorate of potass, five grains; water to one ounce: every four hours.

On the ninth day the patient was sufficiently well for me to discontinue my visits. The breasts, which had been drawn with a breast-pump, had given her no trouble. She was advised to remain in bed for another week, and to recline the greater part of the day until the end of her puerperal month; to take her medicine three times a day after meals, which were to consist of ordinary diet—tea, coffee, milk, bread, meat, and bitter ale.

She was seen again at the end of the month, when I learned that her recovery had been uninterrupted and complete.

On inquiry I ascertained that the drainage of the house was defective, and that two people living in it had suffered from sore-throat and a third from diarrhœa at about the same time as Mrs. G——'s illness. I may add that I continued my midwifery practice during my attendance on Mrs. G——, whilst using every precaution, such as change of clothes and frequently washing my hands with disinfectants, without any bad results to my patients.

I would also ask, is it possible that the speedy exhibition of quinine to chinchonism and the use of an antiseptic injection were the means of warding off in this case an impending attack of puerperal fever?

I remain, Sir, yours truly,

High-street, Deptford, July, 1875. W. R. SMITH, M.R.C.S.

A PHOTOGRAPHIC WONDER.

DR. ULTZMANN, teacher at the University of Vienna, lately read a paper before the Medical Society of Lower Austria on the "Use of Photography in Medical Studies." *Inter alia*, he mentioned, on the authority of Dr. Vogel, that an eruption of small-pox had been made evident by photography twenty-four hours *before* it actually came out. Although no one could as yet observe anything on the skin of the patient, the negative plate showed stains on the face which perfectly resembled the variolous exanthem, and twenty-four hours afterwards the eruption became clearly evident.

A. B.—We must decline to notice the matter. It is disgraceful to all parties.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—Can any of your readers answer me this question:—If a medical officer serves 20 years in the Poor-law service, and retires when 50 years of age, can he when he becomes 60 years of age claim a pension?

Yours &c.,

July, 1875. ENQUIRER.

SMALL-POX IN FRANCE.

AT a late meeting of the Paris Medical Society of Hospitals, M. Moissenet stated that hospital authorities had at length decided that small-pox patients should be received in special wards. Why such a measure was not taken years ago is hardly conceivable. It has also been resolved that variola wards should be set apart at Vincennes and Vésinet, which are institutions where the convalescent from the Paris hospitals are sent. Indeed *all* convalescents used to be sent to these institutions, which are situated in the immediate vicinity of Paris. Among these patients were many just recovering from small-pox; they were conveyed by rail, and the seats they had occupied were *immediately afterwards* used by the general public. Whether the authorities are wise in setting apart wards for small-pox patients in an asylum intended for convalescent patients is extremely doubtful. At all events, it is to be hoped that when variolous patients are sent thither, they will not be conveyed by rail.

Dissector.—Gray's or Quain's Anatomy; Kirkes's, Marshall's, or Carpenter's Physiology.

Mr. Wynter Blyth.—The paper shall receive attention.

A CASE OF POST-PARTUM HÆMORRHAGE UNSUCCESSFULLY TREATED BY INJECTION OF TINCTURE OF IRON.

To the Editor of THE LANCET.

SIR,—As we have heard so much of late about the injection of perchloride of iron in post-partum hæmorrhage, I venture to suggest that the following case is worthy of attention.

A short time back, while taking temporary duty in the absence of a medical friend, I was called to Mrs. D——, aged forty, who was taken in her twelfth confinement at 9 A.M. On reaching the house I found her attending to her duties, and, in reply to my questions, she told me that her pains were very trifling, and only occurred at long intervals. Accordingly I left her, being engaged with a more urgent case. Two hours subsequently I was summoned in haste, and informed that the child was born, and that the mother was flooding profusely. On my arrival I found I had been correctly informed; the patient was lying on the bed completely surrounded with blood. I introduced my hand into the uterus, and cleared it of its contents, which consisted of several large clots and a small piece of placenta, which was adherent to the fundus. The hæmorrhage still continuing, and the uterus refusing to contract, I sent for the perchloride, but could only obtain the tincture of perchloride of iron of the Pharmacopœia (the strength of which is one part of strong solution of perchloride of iron to three parts of spirit). I mixed six ounces of this with an equal quantity of water, and injected the whole of the mixture. In about three or four minutes the hæmorrhage returned as freely as ever, the uterus contracting only momentarily. I now injected about six ounces of the tincture of iron alone, and watched the result. The uterus contracted, but only to relax again. By this time a small quantity of the strong solution of perchloride of iron had been procured, and I mixed about three ounces of this with the same quantity of water, and injected it as before; but once more the hæmorrhage returned, and the patient sank.

Not one of the least interesting features of the case is the fact of the patient surviving so long the immense loss of blood, aided, no doubt, by the administration of brandy and milk at frequent intervals. I have used the perchloride on several occasions; but only in rare instances have I had to inject it more than once, and never before have I seen it fail to arrest hæmorrhage.

In conclusion, I may add that the result of the case in question was not due to neglect of any of the precautions necessary to the success of the operation.

I am, Sir, yours obediently,

July 10th, 1875. T. P. MORGAN.

HOW SANITARY QUESTIONS ARE DECIDED IN CAMBRIDGESHIRE.

THE following extract is taken from a local paper. We will merely premise that the medical officer of health of the district found occasion to point out the defective condition of the water-supply:—

"EFFECTS OF IMPURE WATER.—In consequence of recent unfavourable reports respecting the Chatteris water, we have been supplied with the following facts:—Five widows and two widowers are living down the New-road, who met together last week at a tea party, all being members of the Zion Chapel, whose united ages amount to 496 years; eight old people living in Slade-end, whose average age is 80 years, and one old lady, who had her portrait taken the other day, prides herself on having lived 92 years. In the face of Mr. Apjohn's report, they all believe in the purity of Chatteris water."

Surely no more conclusive testimony could be given of the wholesomeness of the water. The results of analysis are as nought beside such evidence.

Mr. John Russell, (Neath.)—Such cases will occasionally occur, and unfortunately there is no appeal. We do not think any good would result from the publication of our correspondent's letter.

MEDICAL OFFICERS OF HEALTH AND PARISH MEDICAL OFFICERS.

DR. WOODWARD, of Worcester, has written a letter to the Board of Guardians, explaining his unwillingness to supply returns of infectious cases to the medical officer of health unless specially remunerated for doing so.

A Dualist, (Manchester.)—A capital article on Syphilis by Bäumler appears in the third volume of Ziemssen's Encyclopædia of Medicine, just published.

THE PROFESSION IN THE UNITED STATES.

To the Editor of THE LANCET.

SIR,—Allow us respectfully to refer your readers to the "Medical Register and Directory" of the United States," recently published by us. In it will be found full information on the point raised by a correspondent in your last. The systems and institutions for qualification and the number of medical men in each State are fully given, as well as much valuable information not obtainable of any other published source.

Your obedient servants,

BAILLIÈRE, TINDALL, AND COX.

King William-street, Strand, July, 1875.

ANATOMICAL PECULIARITY OF THE JAPANESE.

DR. HILGENDORF, of the German Society at Yeddo for the study of natural history, is credited with the observation that the malar bone of the Japanese is double in many cases. The additional bone, when present, is united to the other by a suture, and is believed by Dr. Hilgendorf to be peculiar to the natives of Japan.

THE NEW FEVER DEPARTMENT OF THE SUSSEX COUNTY HOSPITAL.

To the Editor of THE LANCET.

SIR,—In reply to Dr. Kebbell's letter in the last number of your journal, I beg leave to agree with him that there has been a great deal of misrepresentation, although not on my part, on the subject on which he has written as, for instance, an assertion that the article which appeared in THE LANCET some weeks since was inspired by your humble servant, which, as you can testify, was totally unfounded. Dr. Kebbell has written many letters to the local press on the subject in dispute; while up to the present time I have not written to any journal, local or otherwise, and should not do so now had not Dr. Kebbell indirectly accused me of misrepresentation.

In the very laconic letter which I received from the secretary to the hospital, the new fever department, as Dr. Kebbell now chooses to call it, was designated "a building for the reception of fever and other infectious diseases." In a subsequent letter to the Town Clerk it was called "a sanatorium for erysipelas and other allied diseases, so injurious to patients after accidents and operations." Here we have a complete change of front, and, as I consider, a scarcely honest one, and a false issue is raised. Is it not a preposterous euphemism to call a county fever hospital an erisipelas adjunct? An endeavour is made to make the removal of erysipelas cases the primary reason for erecting the new fever hospital and that of the allied diseases (scarlet fever, diphtheria, typhoid fever, &c.) a mere secondary one. All this at first sight seems plausible; but has it not struck Dr. Kebbell that even after the erysipelas and allied diseases have been removed to the new fever department, the patients after operations and accidents will still be liable to erysipelas if kept in the main building, where they will still be exposed to all those conditions which may be the cause of that disease, such as the emanations given off wherever a number of sick persons are collected or congregated, faulty ventilation, and other insanitary arrangements. If Dr. Kebbell wants a remedy for this state of things, let him remove the patients after operations and accidents into the new building, and so remove them out of the atmosphere of the general hospital. I have never for a moment disputed the desirability of removing the fever and erysipelatous cases out of the main building; but what I suggested was, that as they were to be so removed, why not carry the improvement to its fullest extent, and take them to a safe distance from the population. The matter does not admit of any argument; for if it is right to remove them so short a distance, it must be still better to take them further.

There is no analogy between the cases of London and Brighton. The former is a vast city of nearly four million inhabitants, where there manifestly must be some difficulty in getting a proper site for a fever hospital sufficiently isolated, and yet at a convenient distance from the parts from whence the patients are drawn. Dr. Sibson, in his evidence before the Select Committee of the House of Commons, lays down that distance as three miles. The Sussex County Hospital is nearly three miles from the western extremity of Brighton, and I am sure an eligible site for a fever hospital could be obtained in a situation nearer the central and western parts of the town than the County Hospital. Dr. Kebbell has himself indicated one spot much more isolated—namely, the Parish Infirmary, which the guardians have always kindly allowed to be used in cases of epidemics. What is the practice at present at the County Hospital? It is this. Whenever a case of small-pox is sent there, it is forwarded on at once to the Parish Infirmary. Does not this point to some extent to a solution of the difficulty? If a joint action of the hospital authorities, the guardians, and the sanitary authority were to take place, the difficulty, if any existed, would soon be removed. Dr. Kebbell would only prepare for epidemics. I would do this, but also would, in addition, try to prevent their occurrence. Dr. Kebbell is medical officer of health for Hove, and advocates the transplanting of fever cases from that part to Kemp Town, the extremity of the borough of Brighton, for which I am medical officer of health. I advocate an isolated hospital, which shall be beneficial equally to all parts; that would provide not only for epidemics, but also for the ordinary wants of the town, in order to prevent epidemics, and into which the sending fever patients from the country districts (Dr. Kebbell's hospital being a *county* one) would not be likely to become the means of importing infectious diseases into Brighton. It seems to me astounding that Dr. Kebbell or anyone else can advocate the collection and treatment of cases of infectious disease, no matter how few in number, in a situation close to two asylums for children, the one having at the present time 29 inmates, the other 70, and in last March 116. There is another institution (St. Mary's Hall) not very far off, with 100 pupils, 20 teachers, and 20 servants; total 140. There is also the Brighton College, the Deaf and Dumb Asylum, and a large number of first-class schools in Kemp Town. Dr. Kebbell cannot see any objections to his contemplated fever hospital. I think I have shown him many. Dr. Letheby, in his evidence before the Select Committee (now sitting) of the House of Commons, said: "As a professional man, from the attention he had given to the matter, he believed that it was of the first importance that a hospital for contagious and infectious diseases should not be in a residential district, or in a place where many persons were continually passing by it, for there was no doubt that infection would be spread in this way. He also gave it as his opinion that such hospitals should stand on elevated ground, instead of in a hollow, and away from public thoroughfares." I am of opinion that it is not only wrong to perpetuate a dangerous practice, which has hitherto prevailed, of sending cases of contagious disease for treatment into a thickly populated town like Brighton, but that it inflicts an additional wrong by increasing the zymotic death-rate of the borough, whilst it in the same proportion lessens that of other districts.

I am fully persuaded that so benevolent a lady as Miss Poore has shown herself to be would not have made the least difficulty if the case had been properly represented to her. For what would it matter to her whether the proposed fever hospital or department was close to the main building or a mile or two away from it? The specific object for which she gave the donation would still have been carried out.

I remain, Sir, yours &c.,

R. P. B. TAAFFE, M.D. Lond.,

July 19th, 1875. Medical Officer of Health for Brighton.

DIARRHŒA IN CHILDREN.

Dr. Langmore is thanked for the copy of the "Plain Rules for the Prevention and Treatment of Diarrhœa in Children" distributed among the poor of the dispensary and neighbourhood. They seem to us very good for the purpose, and it would be well if such papers could be extensively distributed. Infantile diarrhœa is a disease so common, and yet so grave, and withal dependent to so large an extent on causes of a preventable character in regard to which the people are ignorant, that such tracts as that under notice are likely to be very useful.

Mr. E. George, (Horncastle.)—The preliminary examination at either the College of Surgeons or Apothecaries' Hall.

Scilla.—Ten days is not a long time. It is not wise to formulate iron rules of conduct in all the different circumstances specified in the three cases put to us. In all events it is better to act magnanimously, and upon a generous construction of the conduct of professional neighbours.

Mr. C. J. Ottley.—We never recommend a particular physician or surgeon.

CASE OF DISPLACEMENT OF THE SEVENTH CERVICAL FROM THE FIRST DORSAL VERTEBRA, WITHOUT FRACTURE.

To the Editor of THE LANCET.

SIR,—J. C——, aged forty-two, a strong muscular man, on May 22nd, whilst under the influence of drink, was engaged in a wrestling encounter. When down on his hands and knees, his opponent placed one hand between his thighs, the other at the back of his neck, and turned him over, so that his head was doubled under his chest. He held him in that position about half a minute, and after releasing him it was found he could not stand. Two hours afterwards I saw him, and diagnosed displacement of the seventh cervical from the first dorsal vertebra, causing pressure on, and tension of, the cord. He was quite conscious, and remained so until a few hours before his death. There was considerable tenderness over the seat of injury, complete loss of motor power and sensibility in the lower extremities, and of sensibility in the trunk below the seat of injury; motion and sensibility somewhat impaired in the upper extremities; priapism and spermatorrhœa. I drew off his urine, applied leeches and hot fomentations, prescribed bromide of potassium, and administered a turpentine enema. He got gradually worse until the third day, when total loss of motion and sensibility in the upper extremities came on, and he died comatose.

In my absence, Mr. Couldrey made a necropsy twenty-nine hours after death. There was considerable ecchymosis over the seat of injury; marked separation between the spinous processes of the seventh cervical and first dorsal vertebra on exposing the spine; the supra- and inter-spinous ligaments ruptured; the ligamenta subflava stretched and partially torn; the dura mater congested, and the spinal cord softened from seat of injury to the brain; the posterior common ligament torn through, the anterior one unruptured. There was no fracture. Brain congested; cerebellum very much softened. An examination of the thorax and abdomen was not deemed necessary.

Yours &c.,

Littleborough, July, 1875. G. K. PITCAIRN.

LECTURES ON INSANITY.

DR. YELLOWLEES, Physician-Superintendent of the Royal Asylum at Gartnavel, has during the last three months given a course of lectures on Mental Diseases at the University of Glasgow, accompanied by clinical demonstrations at the asylum. At the conclusion of the lectures on the 17th inst., an address was presented to Dr. Yellowlees in acknowledgment of his services.

MEDICAL APPOINTMENTS IN THE DUTCH NAVY.

Gat, Surgeon (Dewsbury), would be glad to be informed where he could get the Dutch Navy Medical Regulations.

Statist.—Yes, in Dr. Lagneau's paper recently read before the Parisian Academy of Moral and Political Sciences on the "Influence of Illegitimacy on Mortality." Out of every 1000 children born of unmarried parents, only 238 reach 21 years of age; whereas of children born in wedlock, 640 out of every 1000 attain their majority.

Zero.—We have no information on the subject. It could not be registered in England.

CORONERS' INQUESTS.

AT this juncture the following paragraph, taken from the *Local Government Chronicle*, may prove interesting:—

"The Middlesex justices, at their next meeting, will have laid before them the opinion of counsel on questions submitted to them respecting the holding of unnecessary inquests by coroners. The opinion of Mr. Manisty and Mr. F. W. E. Everitt is as follows:—'If an inquest has been in fact held, and the expenses have been really and *bonâ fide* paid, the justices have no right to disallow the payment of such expenses. If it could be shown that they had not been incurred and paid *bonâ fide*, we think the justices might properly refuse to pay them, leaving the coroner to apply for a mandamus; in which case, if any *mala fides* on his part were proved, the Court would probably refuse to assist him. If, at the expiration of the current five years, the justices should be of opinion that unnecessary inquests have been held, it will be competent to them to take that circumstance into consideration in fixing the amount of the coroner's salary for the next five years. If, in the opinion of the justices, the coroner misconducts himself by holding inquests unnecessarily and vexatiously, the only course open to them during the current five years seems to be to bring the matter under the consideration of the Lord Chancellor.'"

W. C. M., (St. Andrews.)—The "Handbuch der gesammten Augenheilkunde," by Profs. Arlt, Arnold, and others. This important work, in which Profs. Alfred Graefe and Saemisch have a considerable share, is exceptionally good on that little cultivated branch of ophthalmic science, the "Organology of the Eye." Chapter VIII., on the Circulation and Nutrition of the Eye, is particularly well done. It is from the pen of Prof. Leber.

Mr. H. W. Kullmark.—We will endeavour to do so.

TURKISH BATHS IN FRANCE.

M. LEUDET lately read a paper before the Hydrological Society of Paris, in which he described the Turkish baths of Hamburg and Scandinavia. In 1872 the same author had offered a sketch of similar establishments in England, Ireland, and Scotland. He laments greatly that France should be so sadly behindhand in this respect. No doubt the French are more accustomed to public baths than we are in this country, as complete domestic ablutions are with us more common than with them; but it is to be regretted that the French should ignore the great advantages which, in appropriate cases, attend the use of Turkish baths.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Knowing that you are at all times ready to open the columns of your valuable journal for the purpose of bringing before the medical profession and those about to enter it any injustice and hardships inflicted upon men who have been induced by the promise of high pay and emoluments to enter a public service, allow me to trespass upon your kindness in order to inform those who are about entering the Indian medical service to think seriously before doing so. I will, then, briefly notice a few facts which intending candidates for the service may have to encounter should they embark upon an Indian career.

1st. With reference to pay. On arrival in India, a surgeon draws 286 r. 10 a. per mensem, about £300 per annum. This is just sufficient to enable him to exist, for since the great increase in the price of necessaries within the last few years, to save money out of this sum is impossible. To this amount he is restricted until he has passed the examination in the Hindustani language. So say the Regulations. This then is done as soon as possible, in order to qualify for higher pay.

2nd. After passing the examination in the language comes the first blow to his hopes of higher pay and improved position. Instead of being located permanently with a regiment, he is ordered about, first in one direction, then in another, remaining two months in one place, three in another, and so on, these journeys often extending over three and four hundred miles, and the expenses of which frequently have to be borne by the unfortunate officer. This continuous change of station may continue for two or three years, according to the amount of interest he may have at head-quarters. The fortunate may by this time obtain an appointment; the unfortunate, or those who have no interest, may continue to be sent about the country until, wearying of such a life, they obtain a sick certificate to England, disgusted with everything connected with the service, having lost three or four of the best years of their lives, which might have been spent more profitably at home.

3rd. For five or six years a medical officer often is, although entitled after five years' service to 600 r. per mensem, restricted to 300 r. per mensem, with an additional 100 r. with a regiment, because he is only acting—but performing exactly the same amount of work—for an officer who may be in England or elsewhere. When this state of things continues over a period of two or more years, it becomes hard and unjust.

4th. With reference to the future. After twenty-five years of Indian service, an officer may retire upon £365 per annum. Often he may be worn out from long service, and unfit for any further exertion as far as earning money is concerned. I ask you, Sir, do you consider £365 per annum, looking to the present rate of prices in England, a sufficient reward for an officer who has toiled for a period of twenty-five years in an unhealthy climate? Prior to 1864, officers who entered the service had the advantage of subscribing to a Fund, under the regulations of which, on retirement, they were granted an annuity of £300 or £400 in addition to the pension. No such Fund exists now. The reason why is only known to the authorities at the India Office. He has nothing, therefore, to look to but an inadequate pension as a means of subsistence in his old age.

I remain, Sir, your obedient servant,

Madras, June 2nd, 1875. SURGEON OF FIVE YEARS' STANDING.

To the Editor of THE LANCET.

SIR,—In my LANCET received by the last mail I see a letter on the Indian medical service, signed by "Medicus," in which he certainly states the feelings of all the younger members of that service whom I have come across. The memorandum which he quotes states in paragraphs 8 and 9 the various rates of pay to be drawn by medical officers of the different ranks, both unemployed and in charge of regiments; but in no single place is there the slightest mention of *officiating allowances*, the way of calculating which not only bothers the new-comer, but also many high up in the list. I enclose a table showing the way in which this is done, and feel sure you will fully agree with us in considering it a great anomaly, not to say a decided grievance, that for doing exactly the same duty one officer should draw 148 r. 0 a. 11 p. in addition to his unemployed pay, while another receives but 55 r. 10 a. To explain this more fully, let us take two surgeons of eighteen months' standing (this is about the time when they may expect to commence *officiating*). A. is sent to one regiment, the permanent incumbent of which is a surgeon-major of twenty-five years' service. His monthly salary will be, unemployed pay of rank, 286 r. 10 a., plus 55 r. 10 a., which is half the difference between the consolidated and unemployed pay of the permanent incumbent, the two sums amounting to 342 r. 4 a. B., who is perhaps lower down in the list, is, however, more fortunate, and is sent to officiate for a surgeon of over five years' service. He will get 286 r. 10 a. and 148 r. 0 a. 11 p., or a total of 434 r. 10 a. 11 p. It is true these are the extremes; but the above has often occurred, and is likely to do so over and over again. Why should not the medical allowances for a regiment be a fixed sum, as in the case of adjutants, quartermasters, and, in fact, every other officer in a regiment? A certain amount of work and responsibility is attached to the appointment, and a certain sum ought to be paid in return for it. The reason the India Office does not make it clear to intending applicants for appointments what they are really to expect is, of course, unknown to most of us; but the sooner the matter is put upon a better footing the less discontent there will be, and all know that to commence one's career with this destroys zeal to a very great extent.

Your obedient servant,

June 8th, 1875. SURGEON, INDIAN MEDICAL DEPARTMENT.

P.S.—I may state there are not many of us who have not been retrenched at one time or another (in one case to the amount of about 2000 r.) through not being aware of the rules relating to officiating allowances. This is the painful way we first became acquainted with them.

A THIRD DENTITION AT NINETY YEARS OF AGE.

A case of this kind is published in the *Allg. Med. Central Zeit.*, June 21st, 1875. The subject of it was a woman in the Hospital for Incurables at Paris, who found, in her ninetieth year, all her teeth grow again. At the age of forty-seven and again at sixty-three, she had had a new set. The head surgeon of the hospital, who has occupied his post these fifty years, had occasion to witness this extraordinary dentition. In bringing this case before the Academy of Sciences, he referred to Hunter, Jobert de Lamballe, and Petrequin, who had observed similar cases, but not at so late an age.

Mr. G. Skene (Castle Douglas) sends us an account of a method for preventing a "host of diseases depending on deranged alimentary canal," and so doing away with "the practice of physicing children." "An enema given once a day will thoroly prevent any viscious secretion from loding and causing after trouble." The extracts, which we have given *literatim*, are at the service of our readers.

Dr. Woodhouse.—We sympathise acutely with Dr. Woodhouse. We cannot doubt that the letter of Mr. Tasker Evans, jun., was written under a misapprehension of the facts of the case.

F. W., (St. Albans.)—Medical men do not generally dispense in that city. We cannot speak as to the probability of one being able to follow the two occupations mentioned.

Mr. W. Adams.—Another instance, which we happen to remember, is that of Dr. Ede, of Barnsbury, London, who, doubtless, would give particulars to our correspondent.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Henry Lee, London; Dr. G. Johnson, London; Dr. Hughlings Jackson, London; Mr. James Lane, London; Mr. M. Tupper, London; Dr. Quinton, Deal; Messrs. Baillière, Tindal, and Cox, London; Dr. More Madden, Dublin; Dr. Payne, London; Mr. Ayling, London; Mr. Orchard; Dr. Gillespie, London; Mr. Hemming, Bristol; Surgeon-Major Hunter; Mr. S. Snell, Sheffield; Mr. M'Gann, Mysore; Mr. Alcock; Dr. M. Brown, Edinburgh; Dr. F. Alsop, Edinburgh; Mr. Macdonald, Manchester; Dr. Lomas, London; Mr. Blackett, London; Mr. Shackles, Hull; Mr. Newstead, London; Mr. Willing, Great Wakering; Mr. Palmer, Mortlake; Dr. Taaffe, Brighton; Mr. Chitty, Shaftesbury; Mr. Plimsoll, London; Mr. Watts, Hartfield; Rev. J. Cranswick, Staley; Dr. Ray Lankester; Dr. Woodhouse, Hertford; Mrs. Dalrymple, Norwich; Miss Thornton, Dover; Dr. Daly, Dalston; Mr. Jeaffreson, London; Dr. Cuthbertson, Zanesville, Ohio; Messrs. Richardson and Co., Leicester; Mr. Tomkins, Manchester; Mr. Hughes, Waenfawr; Mr. Douglas, Bangor; Mr. Hanbury, Hunstanton; Mr. Sprakeling, Bootle; Dr. Harford, Hillingdon; Mr. Magill, Brableton; Mr. Holland, Camberwell; Rev. A. J. D'Orsey; Dr. Goolden, London; Dr. Haughton, Norwood; Mr. Draper, Boxmoor; Mr. Rayner, Stockport; Mr. George, Horncastle; Dr. Longmore, London; Mr. Lewis, Maidenhead; Mr. Blyth, Barnstaple; Mr. Alderson, London; Mr. Kerr, Woodford; Mr. Solomon, Birmingham; Mr. Horne, London; Dr. Wylie, Clapham; Mr. Haward, London; Mr. Pelham, Croydon; Mr. Evans, Bath; Mr. Rossiter, Diss; Mr. Mason, Hull; Mr. Fortescue, London; Mr. Hawke, Canterbury; Mr. R. Clark, Carlisle; Dr. Woods, Warwick; Dr. Allchin, London; Mr. Manning, Catford Bridge; Dr. Constable, London; Dr. Phillips, Reading; Mr. Price, Wexford; Mr. Dale, Yarmouth; Mr. J. Russell, Neath; Dr. Hutchinson, Chipping Norton; Mr. De Grave, Bromley; Mr. W. Pearson; Mr. Owen, Birmingham; Mr. Anderson, Lower Norwood; Mr. Reed, Worcester; Mr. Kiallmark, London; Dr. Laycock, Edinburgh; Mr. Love, Wolverhampton; Local; M.D.; Paterfamilias; Register; Gat; Zero; Enquirer; R. M.; Medicus, London; Gray's Inn; The Secretary of the Bristol Royal Infirmary; T. B.; Angina Pectoris; Tyro; Every Man to his Own Trade; S. N., Bedford; &c. &c.

BOOKS, *each with enclosure*, are also acknowledged from—Mr. Hamilton, Liverpool; Mr. Fairies, Montgomery; Mr. Allott, Hoyland Nether; Mr. Stephenson, Tramore; Dr. Gray, Wragby; Dr. Bayfield, Swindon; Mr. Lloyd, Newport; Mr. Fox, Topsham; Mr. Ernst, London; Mr. Hind, Ampthill; Mr. Macmillan, Hull; Mr. Cooper, Macclesfield; Dr. Masken, Lyndhurst; Mrs. Crichton, Mortlake; Dr. Burder, Bristol; Dr. Morris, Barnsley; Mr. Thomas, Llanelly; Mr. Sparr, Sheffield; Mr. Williams, Canterbury; Mr. Wellmore, Stockbridge; Mr. Love, London; Dr. Field, Montreal; Mr. Wright, Merton; Mr. Martin, London; Mr. A. G. Fox, St. Peters; Mr. Morris, Gosberton; Mr. Teevan, London; Mr. Evans, London; Mr. Hughes, Pen-y-Mais; Mr. Fox, London; Mr. Fawcett, Taunton; Dr. Davies, Bridgend; Mr. Wright, London; Mr. Roberts, Shrewsbury; The Secretary, Dover Hospital; L.R.C.P., Deal; Lexicon; B. H.; ——, New York; J. L. G., Ross; M.D., Grantham; M.R.C.S., London; C. O., Edinburgh; M.D., Hanley; Surgeon, Romsey; Medicus; W. H., Blackwood; E. M., Edinburgh; A. T.; M. M., Lancaster; J. P.; W. C.

Manchester Guardian, Welshman, Broad Arrow, Women and Work, Spectator, Examiner, Pharmaceutical Journal, Evening Express, Academy, Sunday Times, European Review, Worcestershire Chronicle, Fifeshire Advertiser, Land and Water, Daily Chronicle, Kidderminster Advertiser, York Constitution, East London Observer, Surrey Advertiser, Worcestershire Advertiser, Huddersfield Daily Chronicle, Metropolitan, Liverpool Daily Post, Leeds Mercury, Evening Post (New York), *Brisbane Courier, Record, Stockport and Cheshire County News, Colonies, Brighton Examiner*, and *Isle of Man Times* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, JULY 29TH, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min Temp	Rainfall.	Remarks at 9 A.M.
July 23	29·72	W.	55	57	99	70	55	0·10	Raining
„ 24	29·69	W.	58	60	107	70	56	...	Cloudy
„ 25	29·93	W.	54	60	105	71	51	0·03	Cloudy
„ 26	30·32	W.	51	55	110	74	49	...	Fine
„ 27	30·38	S.E.	54	60	102	72	53	...	Fine
„ 28	30·28	E.	58	61	107	77	54	...	Fine
„ 29	30·20	E.	58	62	...	...	55	...	Fine

Medical Diary for the ensuing Week.

Monday, Aug. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 3.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 4.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 7.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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